California State Journal of Medicine

ISSUED MONTHLY OWNED AND PUBLISHED BY THE
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ENTERED AT SAN FRANCISCO, CAL., AS SECOND-CLASS MATTER

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VOL. XVIII NOVEMBER, 1920 No. 11

INDIVIDUALISM IN MEDICINE

The recent campaign involving the anti-health measures, brought out clearly certain types of medical minds. No properly informed person had any doubts concerning the pernicious character of the first three proposed amendments and the propriety of the last, but they reacted in different ways.

To those who threw their energies into the effort to protect human life and promote social betterment in this issue, we owe our thanks.

There are those, however, who assumed an attitude of non-resistance. Their belief is that the public has a perfect right to go unvaccinated if it choose so to do. That it will learn through experience the folly of its ways. They hold that a man who employs an uneducated and unsafe vender of cures takes his chances, and deserves what poor treatment he gets.

They think that if the populace can't see the great benefits of animal experimentation let them feel the blight of their stupidity, let them suffer personally and economically. In fact, their policy is that of *laissez-faire;* let everybody have a clear field, and may the best man win. Medical legislation is futile and beneath their dignity. They then assume an academic reserve, and "let George do it."

An analysis of their mental reaction amounts to this: they naively assume that because of their superiority intellectually and culturally the people must select them as their guide, philosopher and friend, in time of trouble, and the quack stands no chance. Now as a matter of experience we know that regardless of culture and social station the sick man and his friends are not good judges of their doctor. They cannot appreciate the fine points of his ability; it is too technical. The best of them at times will resort to a charlatan with his plausibilities and sophistry; will follow the crowd in its emotional wave against sound health measures, and will pit their misinformed minds against the findings of an exact science.

Progress in medical education and advancement in public health policies, have only been achieved through persistent gentle force and persuasion.

In the face of superstition and enmity we have fought for anatomical dissection, vaccination, quarantine measures, food inspection, animal experimentation and higher medical standards. We have educated the people as we progressed. But no spirit of non-resistance won these triumphs! This Hindu philosophy wins no battles. Great intellectual aloofness and moral superiority did not achieve this. Someone must strive for these gains. Where the doctor, through timidity, laziness or superiority, is not a willing worker for public health, he is unworthy of the support and protection of the great economic combinations of modern life.

CLINICAL CONGRESS OF SURGEONS

On November 19th and 20th the first annual meeting of the California section of the clinical congress of the American College of Surgeons will convene in San Francisco, with headquarters at the Palace Hotel. During this meeting surgical clinics will be conducted in the various hospitals of the city during the morning hours, and scientific sessions will occupy the afternoons. A meeting open to the public will be held Friday evening, November 19th. All members of the California State Medical Society are cordially invited to attend the scientific sessions, of which detailed notices will appear later.

MALPRACTICE—INDEMNITY DEFENSE FUND

Some of our members apparently are still ignorant of the benefits and advantages which they enjoy or may secure by reason of their membership, particularly those relating to protection from malpractice claims and actions. For their benefit we summarize here some of the basic facts.

Any member who keeps his dues fully paid in his County Society and the State Society, is thereby entitled in a meritorious case to the services of the Society's Legal Department in protecting him from an unfounded malpractice claim or suit. This, of course, should the court or jury rule against him, does not provide for the payment of such an adverse judgment.

To afford such protection and not compel members to resort to insurance companies for it, the Society created in 1916 the Indemnity Defense Fund, which any member in good standing can join by paying $15.00 in cash and executing a note for an additional $15.00, without interest, payable one year thereafter.

By joining the Fund a member does not obligate himself to pay further assessments. No assessment has been found necessary during the existence of the Fund for nearly four years. Some small assessments will undoubtedly be levied from time to time, but they will be far less than the lowest insurance premium charged by private insurance companies, which is $15.00 per annum.

If a member already carries insurance, the Society does not recommend that he drop it, but does strongly recommend that he not only continue his insurance but join the Fund as well. A member thus obtains double protection, which in a given case may prove very beneficial.

Members are protected by the Fund only as individuals. Each member of a partnership must join. The same rules obtain precisely as those which govern the member's right to the services of the Society's Legal Department when not a member of the Fund.

We are occasionally asked, why should a member of the Society who pays a fairly large annual due, say $18.00 or more, to his County Society, be called upon to pay $30.00 to the Fund? The answer upon a little reflection is very simple and obvious. The purpose of the annual dues to the Society is well understood. A portion of the State dues goes to the maintenance of the Legal Department. The Legal Department covers the court costs and attorneys' fees in unmerited malpractice claims and suits, but if, unfortunately, a judgment is recovered against a member, *the member must pay that himself,* unless he carries insurance in an insurance company *or unless he joins the Fund.* It was to give this additional financial protection that the Fund was organized. A very large proportion of the members of the State Society now belong to the Fund. Those who have not joined should not hesitate to do so. Enlightened self-interest should impel those still without this protection to secure it at once by mailing a check for $15.00 to the Secretary before laying this issue to one side. Services rendered today may form the basis of an annoying and even dangerous suit in court some months hence.

OPHTHALMOLOGY VS. OPTOMETRY

Ophthalmology is an easy specialty for the optometrist only; the ophthalmologist fully confesses that even four years of college, four of medicine, one as an interne, and two in an ophthalmological hospital, render him none too sure of the correct diagnosis and treatment of the diseases of the delicate organ of his specialty. Hats off to the optometrist, who freely admits—(see the advertisement in any street car)—that he relieves headache, tired feelings, eye strain, sleepiness, red eyes, sore eyes, styes and pimples. It is true that he does not examine the fundus. He, however, prescribes glasses for nothing and sells them for a good profit—(evidently he considers his skill in prescribing as worth little in comparison to the difficulty of manufacture)—puts glasses with an equal amount of assurance on the noses of the glaucomatous, the cataractous, the diabetics and the arterio-sclerotics—all this without medical history, without reference to factors such as age, sex, work, general health, use of eyes or previous wearing of glasses. The tailor, the shoemaker, the hatter and haberdasher treat our anatomical variations and eccentricities with more regard.

To the ophthalmologist slowly comes the caravan of cripples—this one has glaucoma, has had it for a year. Six pairs of glasses have for two months apiece "helped him";—this one has incipient cataract—from optometrist to optometrist he has wandered, plodded homeward his weary way—richer in glasses and poorer in pocket. This one has diabetic retinitis—and glasses have not relieved his increasing thirst and decreasing weight; and somehow nerve atrophy has not been benefited by a +0.50 cylinder, axis 90°; they are given proper advice for a fee usually not in excess of one-half the cost of their last tortoise shell framed spectacles—and, realize now that an eye is an eye, and a tooth is a tooth, and that Painless Parker and Optimo, the optometrist, are first cousins.

We take off our hats again to the few opticians, there are some such oasis in the howling wilderness, who stick to their last. They are experts in the grinding of lenses, in the proper fitting of frames, in the art of making a spectacle seem to belong to the face—and to this delicate and grateful task they stick, as master workmen, and make the carefully worked out prescription of the ophthalmologist of real service to his patient. A pernicious state law allows them to prescribe—but they have the good sense and ethical feeling to realize that the patient's good is for the best of all—and that in time, between the pure ophthalmologist and the pure dispensing optician the optometrist brays like an ass in the wilderness.

THE "FRINGES" OF MEDICINE

Physicians as a class are well acquainted with what might be termed Medical Practice Proper; they have an essential knowledge and skill in diagnosis, prognosis and medical and surgical therapeusis. They accept without question that diagnosis, and medical and surgical treatment belong to the trained physician.

But step a little away from the body of the scheme of medical practice and consider the "fringe"; think for the moment of anesthesia; then clinical and X-ray laboratory procedures; physical therapy of one or another sort, and psychoanalysis and the various other forms of psychotherapy. Immediately it will be noted one or all of these portions of the fringe (but also equally essential parts of medical practice itself) have been, through lack of interest, and for other reasons, allowed to fall into the hands of lay people who lack the knowledge and skill necessary to the practice of medicine.

The State Society took a definite stand on the practice of anesthesia at its last meeting, declaring in effect that the practice of anesthesia was the practice of medicine and therefore that, whenever possible, anesthetics should be administered by physicians.

The attitude of a large percentage of the medical profession in California is approaching a place where a similar stand may be demanded as regards the laboratory, physiotherapy and any other medical procedures. Clinical and X-ray laboratories, physiotherapy departments and the like, whether in hospital, clinic or private practice, should not exist without direction and control of competent, graduated, and licensed physicians.

There are trained physicians in every community of any size who are ready and prepared to do the type of work under consideration. If the town is not big enough for a physician to find it profitable to do the work, it does not seem reasonable that a lay commercial firm should find it advantageous.

Therapeutic and other procedures, in addition to their value in the alleviation of suffering and restoration from disease or disability, carry with them elements of danger when placed in unskilled hands. Accept the physiotherapist who by proper training can apply such manipulation, massage and the like as you may think indicated in a given case; but remember he has not the medical knowledge that may determine when this or that form of treatment may actually be detrimental to your patient.

Laymen have recently opened offices for the practice of psychoanalysis. Such individuals have not been trained to recognize a paresis case, or a paranoiac with homocidal potentialities. During the search for the "complex" the result of admixture of interstitial gland and brain substance, the patient may decide to take the life of someone of great value to the community. Lay medical practice shows its danger to public security as well as public health.

In every other branch of human endeavor the trained man seems to be in demand. Medical men in the rush from patient to patient and in the day that is all too short have seemed satisfied to watch the body of the practice of medicine and leave the fringe to laymen. Now times have changed; physicians are seeing, and will soon demand, that medical practice in all of its ramifications shall indeed be carried out by or under the direction of regular physicians.

COUNCIL OF SOCIAL AND HEALTH AGENCIES

There has just been formed in San Francisco a Council of Social and Health Agencies, which is designed to function as a clearing house for the relief and social problems of the city, and which should bear the same relation to municipal affairs that the State Conference of Social Agencies bears to State affairs. The objects of such a Council are (a) the promotion of real co-operation among all the public and private health and social agencies, (b) the development of higher standards and the promotion of greater efficiency in social and health work, (c) the prevention of waste and duplication of effort, (d) to advise in the undertaking of new work by organizations already in existence and in the creation of new agencies, (e) the promotion of all necessary activities and the discouragement of all unnecessary ones.

It is obvious that in any such program the position of the medical profession is important. If all questions of health are removed, the bulk of social work is done. While the actual administration of relief programs is properly in the hands of technically trained and experienced workers, it is none the less true that the advisory interest of the physician is absolutely essential if a sound progress is to follow. It is worth noting in the case of the new San Francisco Council, which has been organized and planned with unusual care and foresight, that on the directorate of twenty persons there are four physicians.

Some such co-ordinating body of all relief and medical agencies could with propriety and for efficiency be instituted in every town large enough to have any social problems requiring organized relief. A round-table discussion is the best way to arrive at peace and progress.

Special Articles

THE ROENTGEN DIAGNOSIS AND LOCALIZATION OF PEPTIC ULCER.*

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For a long time there has been a controversy over the relative merits of surgical and medical treatment of peptic ulcer. The crux of the question seems to lie mainly in accurate diagnosis. In most cases the surgeon has the advantage of being able to see, feel, and demonstrate the presence of ulcer before deciding on the method of operation. Very few medical men, however, can be certain of the presence of ulcer before begin-

* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

ning the medical management of a case, unless the ulcer can be demonstrated by the roentgen-ray.

Treating ulcers diagnosed on clinical findings on the one hand, and on roentgen findings on the other, are two entirely different matters, for in the former instance their existence is highly problematic, while in the latter it is reasonably well established. Although the roentgen-ray is not infallible and may not distinguish simple from malignant ulcers, it certainly can point to the fact that a lesion is present. Furthermore, it will often be the means of recognizing the disease earlier, which is of the greatest importance from the standpoint of treatment.

No other organ in the human body has been accused of so many disorders which it never had as has the stomach. It has been judged guilty and sentenced to treatment when it was perfectly innocent. It has been treated energetically when the symptoms were merely reflex and secondary to organic trouble located in some other organ.

Many physicians are of the opinion that the symptomatology of duodenal ulcer is more exact than that of gastric ulcer. This impression is probably due to the fact that duodenal ulcer is about four times as common as gastric ulcer, and not to any greater exactness of symptomatology. The clinician starting with a diagnosis of peptic ulcer is likely, therefore, to be influenced in making a diagnosis of duodenal ulcer, not because of any characteristic symptomatology, but by the fact that surgery has proved its greater frequency.

Graham found in our case histories no note of symptoms or group of symptoms that always warranted differentiation of gastric and duodenal ulcer; from this it seems that the clinician who depends on the history alone for localization of the ulcer will often find himself mistaken. Then, too, especially after the development of complications, ulcers sometimes lose their typical histories and may cause symptoms inseparable from those of other abdominal complaints. Moreover, many patients, particularly neurotics, may have learned the ulcer symptoms from former examinations and interrogations, and thus influenced they recite a history typical of ulcer. Error in such cases can usually be avoided by roentgen examination.

The localization of peptic ulcer has an importance apart from diagnostic accuracy. For instance, in 245 cases diagnosed gastric ulcer by the roentgen-ray and operatively confirmed during the years 1918 and 1919, thirty-three (14.47%) were found to be carcinomatous. Twelve of these thirty-three malignant gastric ulcers were diagnosed clinically, but twenty-one, or 8.6% of the total number, were not recognized as malignant before operation. Only six primary malignancies were found in 4,500 operations on the duodenum. Since diagnosis is the basis for treatment, diagnostic separation of gastric from duodenal ulcer should, therefore, be of invaluable assistance to the physician from the standpoint of prognosis.

Table 1.

ROENTGEN-RAY DIAGNOSIS AND LOCALIZATION OF THE PEPTIC ULCER.

July 1, 1918, to January 1, 1919.

Mayo Clinic.

Stomachs examined	3890
Cases diagnosed peptic ulcer	528
Operations	343
Diagnosis confirmed at operation (98.21%)	337
Incorrectly diagnosed (cancer of the stomach, 3; cholecystitis and appendicitis, 1; cholelithiasis with duodenum buried in adhesions, 1; appendicitis, 1) (1.79%)	6

Three thousand eight hundred and ninety of 23,598 patients who presented themselves at the Mayo Clinic from July 1, 1918, to January 1, 1919, complained of gastric symptoms sufficient to warrant roentgenologic study. Four hundred and seventeen of these 3890 cases were diagnosed duodenal ulcer by the roentgen-ray and 111 gastric ulcer, a ratio of about 4 to 1. Two hundred and fifty-five of the 417 cases diagnosed duodenal ulcer were submitted to operation; in 246 the diagnosis was confirmed. Three of the nine cases incorrectly diagnosed proved to be gastric ulcer, two were diagnosed as duodenal and gastric ulcer when only the gastric ulcer was present, one was cholecystitis with the duodenum bound down in dense adhesions, one cholecystitis and appendicitis, one cancer of the stomach, and one appendicitis with no upper abdominal pathology.

DUODENAL ULCER.

Cases diagnosed duodenal ulcer	417
Operations	255
Diagnosis confirmed at operation (96.47%)	246
Incorrectly diagnosed (gastric ulcer, 3; double lesion and only gastric ulcer present, 2; cholecystitis with duodenum bound in dense adhesions, 1; cholecystitis and appendicitis, 1; cancer of the stomach, 1; no upper abdominal pathology, 1; appendicitis, 2)	9

Operations were performed in eighty-eight of the 111 cases diagnosed gastric ulcer; in eighty-four the diagnosis was confirmed; two of the four cases incorrectly diagnosed were duodenal ulcers, and two inoperable cancers of the stomach, one because of marked metastasis, and the other because of involvement of the body of the stomach and metastasis.

GASTRIC ULCER.

Cases diagnosed gastric ulcer	111
Operations	88
Diagnosis confirmed at operation (95.45%)	84
Incorrectly diagnosed (duodenal ulcer, 2; inoperable cancer, 2; metastasis, 1; extensive involvement of the pars media and metastasis, 1)	4

The discrepancy between the percentages of confirmed peptic ulcers (98.21%) and the confirmation of duodenal (96.47%) and gastric ulcers (95.45%) independently, is due to the incorrect diagnosis in two cases of gastric ulcer and five cases of duodenal ulcer.

Twenty-one cases were diagnosed as "lesion of the outlet." This diagnosis was unavoidable for, while there was evidence of a pathologic lesion in the stomach, there were no roentgen signs charac-

teristic of any known disease. Eighteen of these twenty-one patients were operated on and the diagnosis confirmed.

Table 2.

CASES IN WHICH A DEFINITE PATHOLOGIC CONDITION WAS SHOWN BUT ACCURATE LOCALIZATION WAS IMPOSSIBLE.

Cases diagnosed "lesion at outlet"	21
Operations	18
Final diagnosis of the 18 cases:	
Gastric ulcer	4
Duodenal ulcer	3
Gastric and duodenal ulcer	1
Cancer of the stomach	8
Cholelithiasis with marked adhesions	1
Lump of questionable nature in the pyloric muscle	1

Sixty-seven cases were diagnosed "indeterminate," which in our work signifies that from a roentgen-ray standpoint it is impossible to express either a negative or a positive opinion. The clinicians understand that such a report is not to be considered.

Table 3.

CASES WITHOUT CHARACTERISTIC ROENTGEN FINDINGS.

Cases diagnosed "indeterminate stomach and duodenum"	67
Operations	12
Final diagnosis of the 12 cases:	
Duodenal ulcer	5
Gastric ulcer	1
Cholecystitis	2
Cholecystitis with stones	1
Cancer of the stomach	1
Lesion at ring, questionable in character	1
Nodules in the liver (questionable cancer)	1

In 3,105 of the 3,890 cases the diagnosis was negative. In 351 of these, operation was done for various abdominal conditions; the surgical report on the stomach and duodenum was negative in 336; thus the roentgen-ray gave a positive diagnosis in 95.76 per cent. of the negative cases.

Table 4.

THE VALUE OF "NEGATIVE" ROENTGEN DIAGNOSIS.

Cases diagnosed "negative stomach and duodenum"	3105
Exploration of the stomach and duodenum during operation for various abdominal conditions	351
Diagnosis of "negative stomach and duodenum" confirmed by surgeon (95.76%)	336
Diagnosis of "negative stomach and duodenum" *not* confirmed by surgeon (duodenal ulcer, 14; gastric ulcer, 1) (4.24%)	15

These findings show that the roentgen-ray was correct in the diagnosis of peptic ulcer in 98.21 per cent., while in the localization of ulcer it was correct in more than 95 per cent., clearly indicating that the roentgenologic examination has an exactness which the clinical findings lack.

I do not wish it understood that I believe the roentgen-ray examination should exclude all other examinations, but I do believe that if the roentgen finding needs a clinical prop, it is no more accurate than the clinical diagnosis alone.

The roentgen signs of peptic ulcer are far more definite than the clinical signs and symptoms of many diseases, and if the roentgenologist is unable to make a diagnosis on roentgen signs alone the clinician should disregard his opinion.

By the aid of the roentgen-ray not only a single lesion, but also double lesions may be visualized, such as multiple ulcers in the stomach, gastric and duodenal ulcer, gastric cancer and duodenal ulcer, gastric and colonic cancer, with or without metastasis in the bones or lungs, and gastro-intestinal disease with accompanying disease in the chest, the gall-bladder, and the urinary tract.

Deformity of the luminal contour, either organic or spasmodic, is the principal roentgenologic sign of disease in the digestive tract, not only revealing a lesion but directly showing its location, its size, and often its character. It shows as an addition to or a subtraction from the luminal outline when brought into view by the use of substances opaque to the roentgen-ray. Striking examples of organic deformity are seen in the filling defect resulting from gastric cancer and the niche of gastric ulcer, while spasmodic deformity is seen in the incisura of duodenal ulcer and the spasmodic hour-glass of gastric ulcer, the diagnostic value of all of which must be conceded.

Many roentgenologists refuse to make a diagnosis in the absence of direct signs, and claim that complexes made up of indirect signs are of no value. This view is far too radical, for if roentgen-ray diagnoses were limited to cases in which direct signs only are noted, many lesions of the alimentary canal would pass undiscovered. Often more remote phenomena must be considered in the diagnosis, such as alterations of motility, tonus, and peristalsis. All of these manifestations are affected by spasm. For instance, we are more or less dependent on changes of contour, spastic in nature but set up by an intrinsic lesion, such as the spasmodic hour-glass of gastric ulcer or the spastic deformity of duodenal ulcer. We must also be able to recognize the spastic deformity produced by extrinsic lesions remote from the deformed organ. Such deformity may simulate that produced either directly or indirectly by an intrinsic lesion. Thus two types of spasm are met with; one may be spoken of as intrinsic, the other as extrinsic. The first is often a help in diagnosis, the latter often a hindrance.

Our statistics show that 95 per cent. of the chronic peptic ulcers are demonstrable by the roentgen-ray. It is the trend of opinion that many ulcers are probably potential cancers; hence the advantage of an exact diagnosis of gastric ulcer afforded by the roentgen-ray is apparent.

GASTRIC ULCER.

Four types of gastric ulcers may be distinguished at operation:

1. Small mucous erosions and minute, slit-like ulcers.
2. Penetrating, or perforating ulcers with relatively deep craters.
3. Perforated ulcers, with or without the production of accessory pockets.
4. Carcinomatous ulcers.

The first type of ulcer, the small mucous erosion, offers the greatest difficulty to roentgenologic

detection. It is either a superficial denudation, or a mere slit in the mucosa incapable of holding enough barium to make a visible projection from the gastric lumen.

The penetrating or perforating ulcer which has burrowed more or less deeply into the gastric wall, but does not penetrate the peritoneal coat of the stomach, produces a definite crater jutting from the lumen of the stomach. The degree of facility with which this crater can be seen by the roentgen-ray depends more on the location than on the size of the crater.

The perforated ulcer which has excavated through the peritoneal coat of the stomach may, at the time of perforation, become covered by gastrohepatic omentum, or, if the perforation is chronic, it may be protected by adhesions. In either case the roentgenologic signs are the same as in the penetrating or perforating ulcer before perforation takes place. The only condition indicating perforation, therefore, is the depth of the crater. Perforation of an ulcer with a continuation of the destructive process into adjacent tissue results in the formation of an accessory pocket outside the stomach.

Carcinomatous ulcers are not, as a rule, distinguishable from non-malignant ulcers; their roentgenologic signs are very much the same as those of penetrating and perforated ulcer.

The roentgen-ray signs of gastric ulcer may be divided into three groups:

1. Direct signs (pathognomonic)
   a. The niche
   b. The accessory pocket.
2. Indirect signs (but diagnostic)
   a. Organic hour-glass stomach
   b. Spastic manifestations
      1. Spasmodic hour-glass stomach
      2. Gastrospasm.
3. Corroborative signs (not diagnostic)
   a. Retention from the six-hour meal
   b. Gastric hypotonus
   c. Alterations of peristalsis.

The niche is a bud-like projection from the barium-filled stomach wholly within the gastric wall, and is an index either of a penetrating or of a perforated ulcer which has not excavated an adjacent organ. The accessory pocket, sometimes loosely spoken of as a "diverticulum," is a pouch-like excavation resulting from extension of a perforated ulcer into near-by tissues, usually the pancreas or liver, less often the lesser omentum, abdominal wall, or spleen. An accessory pocket ranges in diameter from 1 to 5 or 6 cm. and may appear like a miniature stomach with successive layers of gas, fluid, and barium; it may retain barium after the stomach is empty. An accessory pocket in the liver moves with respiration, while a pocket in the pancreas does not. The latter also has a more posterior situation, as shown by the oblique view, and a wider excursion when the patient is rotated.

Both the niche and the pocket are obviously signs of advanced ulcer, but ulcers not sufficiently extensive to produce an excavation that can be visualized on the screen or plate are rarely found at operation; they are mere mucous erosions or small crevices, and their diagnosis can be made only on less definite signs such as spasmodic hour-glass stomach.

Indirect signs (but diagnostic):

1. Organic hour-glass stomach.
2. Spastic manifestations.
   a. Spasmodic hour-glass stomach.
   b. Gastrospasm.

Organic hour-glass stomach.—This condition is an occasional sequence of penetrating or perforated gastric ulcer. It is seen most typically in ulcer, but is found also in gastric cancer and gastric lues. The constricted portion is infiltrated or involved in adhesions, and is present at operation. Roentgenologically it can not be distinguished from the spastic type of hour-glass resulting from ulcer, but should be subjected to the same tests as the latter. Like the spastic form, it is usually B-shaped, with a short canal near the lesser curvature. This serves generally to distinguish it from the cancer or syphilitic hour-glass, which is more often X-shaped, with a long canal, centrally placed. All forms of organic hour-glass stomach have certain features in common: they are persistent at all examinations, constant in situation, and remain unaltered after the patient has been given an antispasmodic to physiologic effect.

Spasmodic hour-glass stomach.—Two types are recognized, the intrinsic and the extrinsic. Intrinsic spasm is a convenient designation for spastic contraction of the gastric musculature arising directly from a lesion of the stomach. In the majority of cases the lesion is an ulcer; cancer, however, may produce a similar local spastic indrawing of the gastric wall; the organic hour-glass accompanying tuberculous and syphilitic lesions is also usually accentuated by spasm.

Extrinsic spasm is produced either by lesions outside the stomach or at all events is accompanied by such lesions. It is an occasional cause of hour-glass deformity, as seen roentgenologically, and has been noted in association with duodenal ulcer, disease of the gall-bladder or appendix, and sometimes in emotional states. Spastic hour-glass due to extrinsic causes, with the exception of that due to duodenal ulcer, can usually be distinguished from other forms of spasmodic hour-glass.

The purely spastic hour-glass deformity, whether of intrinsic or extrinsic origin, is rarely present at operation because of the relaxation produced by narcosis, and for this reason the roentgenologist is sometimes wrongfully accused of an error in diagnosis.

For the differentiation of intrinsic and extrinsic spastic deformity tincture of belladonna is prescribed, starting with twenty drops and increasing the dose frequently until the physiologic effects, such as dryness of the throat, and pupillary dilatation occur; the patient is then re-examined. It is true that belladonna or atropin will not differeneiate spasmodic and organic forms of hour-glass stomach, but they will differentiate intrinsic and extrinsic spasm. When the hour-glass contraction is the only roentgen sign this test must be very

carefully carried out, as otherwise the roentgenologist may lead the surgeon into error. It has been my experience that an hour-glass that resists belladonna to the physiologic effect means a lesion either of the stomach or duodenum; and regardless of whether or not the hour-glass is present at operation, the surgeon will find the cause, if he looks for it.

Corroboration signs (not diagnostic):

1. Retention from the six-hour meal.
2. Gastric hypotonus.
3. Alterations of peristalsis.

These signs either singly or in combination have no diagnostic value since they are seen in other diseases and at times in normal stomachs.

Six-hour retention.—A distinct residue in the stomach from the six-hour meal is seen in 55 per cent. of the gastric ulcer cases. In this respect gastric ulcer stands a close second to gastric cancer. The manner in which an ulcer causes retention is not definitely known in many cases. While it is easy to understand how an ulcer located at the pyloric ring may cause obstruction, it is hard to understand why one situated remote from the pylorus should do so. But practically 90 per cent. of all gastric ulcers occur in the vertical portion of the stomach above the incisura angularis. The retentions which they produce have been assigned respectively to pylorospasm excited by the ulcer, to impairment of peristalsis, and to hypotonus. A retention alone is not sufficient evidence for the diagnosis of ulcer, since various causes may operate to produce a six-hour residue.

Gastric hypotonus.—An evident loss of tone shown by sagging and expansion of the lower gastric pole is a frequent accompaniment of ulcer, not only of ulcers causing obstruction but also of those situated rather remote from the pylorus. Hypotonus alone possesses little significance, for it is an expected finding in the numerous patients of enteroptotic build; but if the hypotonus does not accord with the habitus of the patient, the possibility of an ulcer should be considered.

Abnormalities of peristalsis.—The variations of peristalsis met with in gastric ulcer include weak peristalsis, hyperperistalsis, especially of irregular type, absence of peristalsis from the ulcer-bearing area, and anti-peristalsis. None of these is peculiar to ulcer, but all of them are more or less suggestive of a gastric lesion. All lesions of the gastric wall tend to interfere with peristaltic movement in the area involved. If an ulcer is located at a point where peristalsis commonly is visible a noticeable absence appears in the ulcer area. Anti-peristalsis is occasionally noted with gastric ulcer, and while it is not necessarily indicative of ulcer, it generally denotes the existence of organic disease either in the stomach or duodenum, with or without obstruction.

Carcinomatous ulcer.—The roentgenologic signs of ulcer differ so much from those of carcinoma in the larger number of cases that differentiation requires no effort. A callous ulcer with a niche, or a perforated ulcer with pocket formation, has no roentgenologic resemblance whatever to a well-developed carcinoma. Usually ulcers project from the gastric contour, while in carcinoma the growth with its resultant irregularity extends into the gastric lumen. Between the typical ulcer and the typical carcinoma there is a small percentage of cases in which the roentgenologic differentiation is impossible. These are the border-line cases, in which carcinoma cells are found in the ulcer. In such instances the roentgen-ray signs are chiefly those of ulcer, and a diagnosis of ulcer is likely to be made. Experience has impressed me with the fact that an ulcer crater, with a base of extreme size, is to be suspected of malignancy. A niche 3 cm. or more in diameter is likely to show microscopic signs of carcinoma.

DUODENAL ULCER.

Pathology.—The roentgenologist should have a knowledge of the gross pathology of duodenal ulcer before undertaking its roentgenologic study. Fully 95 per cent. of such ulcers are found in the first 4 or 5 cm. of the duodenum, usually on the anterior wall. Less than 5 per cent. are more distally located and may be found in any part of the duodenum. A duodenal ulcer, although commonly single, may have a companion or contact ulcer on the opposite wall, or there may be several ulcers variously grouped and in various stages of development. Judd, who has excised many ulcers of the duodenum recently, is impressed with their frequent multiplicity. The macroscopic appearance of an ulcer depends on its age and the resulting amount of scar tissue. A recent ulcer may be so small and shallow that no evidence of it can be seen on the serosa. External scarring is visible in a large number of ulcers, but this may occur without marked contraction or deformity. They vary in diameter from 1 mm. to 2 or 3 cm.; in exceptional instances they may attain a diameter of 5 cm. The chronic ulcers with extensive cicatricial contraction cause organic deformity, and in 25 per cent. stenosis is evidenced by a six-hour retention. Although chronic duodenal ulcers may show crater formation similar to that of gastric ulcer, it is a notable fact that they are characterized by surface extension rather than by depth. Duodenal ulcers may also penetrate to the serosa or perforate the duodenal wall. The perforation may be sealed by the adhesion of adjacent tissues, or the ulcerative processes may invade the pancreas, liver, or gall-bladder, and produce an excavation similar to that of perforated gastric ulcer. An actual diverticulum or pouching of the gut is rarely seen proximal to a stenosing ulcer.

ROENTGEN SIGNS.

The roentgenologic indications of duodenal ulcer may be classified as follows:

1. Direct signs
   a. Deformity of the duodenal bulb
   b. Duodenal diverticulum.
2. Indirect signs (diagnostic)
   a. Gastric hyperperistalsis
   b. Gastric retention from the six-hour meal (the combination of hyperperistalsis with gastric retention and a normal gastric outline is diagnostic of duodenal ulcer with obstruction).

Direct signs.—Deformity of the duodenal con-

tour, particularly of the first portion, the duodenal bulb or cap, stands first among the roentgenologic signs of diagnostic value. The assumption that the distortion of the cap represents the organic deformity produced by the ulcer has contributed strongly to the doubt with which this sign was received, since it is known that many duodenal ulcers do not materially alter the duodenal topography. Yet ulcers of this kind often give rise to bulbar deformity quite out of proportion to the organic changes found at operation. The deformity of the bulb in these cases is largely the result of spasm, and it is possible to understand why the distortion of the bulbar shadow is more exaggerated than the deformity seen at operation. Indeed, if this were not a fact, the roentgen-ray would be of little value in the diagnosis of many duodenal ulcers. Absence of spasm would also explain why, in some cases, no irregularity of the bulb-shadow is present, a condition which I have observed in a few cases and which proves beyond question that a well-rounded-out normal bulb does not exclude the possibility of duodenal ulcer; it also demonstrates that the spasm is not always constant.

The deformities more or less characteristic of duodenal ulcer may be enumerated as follows:

1. General distortion with the entire contour of the bulb deformed. This distortion is largely due to spasm, which is practically always persistent and unvarying.

2. The niche type in which the excavation of the ulcer is seen projecting from the bulb. This type is rare and may or may not be accompanied by organic or spastic deformity.

3. The incisura type of deformity, either single or bilateral. The incisura occurs in the plane of the ulcer, and may be the sole abnormality of contour observed. Uusually narrow but of variable depth, persistent and permanent as to situation, it suggests the nature of the lesion and indicates its site. No cavity or organic deformity produced by the ulcer is demonstrable, but the spasm alone is diagnostic.

4. The diminutive bulb. This is represented by a small, compact mass of barium in the cap. It is usually produced by an ulcer stenosing the duodenum, so that only the proximal portion of the bulb is filled. Unless other signs are present, such as gastric retention, antral dilatation, and hyperperistalsis, a diminutive cap should not be considered indicative of ulcer.

5. The accessory pocket. This results from a perforated ulcer which has invaded tissue outside the duodenum, forming a cavity outside the bulbar contour.

6. The diverticulum. A diverticulum in the first part of the duodenum is relatively uncommon. It is found near the pylorus, and its relationship with duodenal ulcer and scars seems well established. The few duodenal diverticula that I have observed have all been associated with duodenal ulcer. Both the true and false type are recognizable roentgenologically and, when present, constitute an excellent sign of duodenal ulcer.

All the deformities named are typical and pathognomonic of ulcer. Likewise, when the bulb fills completely and is of normal contour the fact is readily apparent, but to distinguish a deformed cap from one partially filled is sometimes troublesome. Cases without ulcer are seen in which the bulb fails to show a normal contour simply because of incomplete filling. This is likely to happen in cases in which the duodenum is large, but the deception is evidenced by the varying aspect of the deformity.

In an overwhelming preponderance of cases a constant deformity means duodenal ulcer. Such deformity is not absolutely diagnostic, since distortion of the duodenal shadow may result, though rarely, from an adhesion-producing process in the right upper abdominal quadrant, or possibly from reflex spasm set up by lesions outside the duodenum. Pressure against the spine may deform the duodenum, particularly its upper border, but by using both screen and plate the cause should be apparent.

Indirect signs. Hyperperistalsis. Hyperperistalsis consists of three or more waves running along the stomach at one time. It is seen in a large proportion of cases and is most exaggerated in the obstructive cases, but it occurs also when there is no obstruction. A characteristic feature is the regular succession and symmetrical correspondence of the waves on both curvatures. A mere exaggeration of wave depth should not be confounded with hyperperistalsis, since an essential feature of the latter is an increase in the number of the waves, although they may also show unusual vigor. Hyperperistalsis is often intermittent in character, periods of activity alternating with periods of rest. Of course the phenomenon of hyperperistalsis is not limited to duodenal ulcer, for it may accompany disease of the gallbladder or appendix, or be seen normally in the hypertonic stomach. Obstructing pyloric and prepyloric lesions are sometimes attended by hyperperistalsis, but in such cases the waves are rarely uniform in depth and sequence, and they are chiefly on the greater curvature. Occasionally, however, this variety of peristaltic exaggeration accompanies a perforated duodenal ulcer.

A logical result of hypertonus and hyperperistalsis is hypermotility, provided no marked obstruction has been produced by the ulcer. Generally speaking, the initial clearance in cases of duodenal ulcer may vary from a slight increase to a profuse flow or it may be abnormally scant with obstruction, and the moderate intermittent outflow of normal conditions may be absent. Hypermotility is not peculiar to duodenal ulcer, for it is a common effect of gastric cancer, achylia, and the diarrheas. On the other hand, about 25 per cent of the duodenal ulcers are sufficiently obstructive to produce a six-hour retention in the stomach. If in addition to the gastric retention there is typical gastric hyperperistalsis, the diagnosis of a duodenal ulcer by x-ray is quite as certain as a diagnosis on any other evidence that can be obtained.

NASAL PLASTIC SURGERY*

By H. B. GRAHAM, M. D., San Francisco.

No one surgical procedure is sufficient for any one pathological condition. Therefore, the more familiar a surgeon is with the various methods employed to gain a given result, the better can he adapt himself to the case in hand. This is particularly true in the correction of nasal deformities; each case is a law unto itself, with its peculiar problem to handle. A congenital pug nose, and a depressed fracture of the bridge may appear to offer the same opportunities for the implantation of bone cartilage, but the one may need only the one procedure, whereas the other more than likely may require a resection of the septum, or a refracture of the maxillary bones. One patient may be perfectly willing to allow an injection of paraffine, whereas he might refuse absolutely the more major procedure of a rib transplant.

There is so little of this work done, that the surgeon is very apt to adopt one or two unmodified procedures to the exclusion of many well-recognized ones, which have proved successful in other hands, and his results will be improved by even a knowledge of what may be done, although he may not practice those particular methods. I am, therefore, going to discuss various methods of arriving at the same object, discussing at the same time a few of the more recent ideas concerning their practicability, based on pathological and clinical results.

Saddle Nose—is a frequent condition which may be variously corrected by the implantation of various foreign bodies, injection of paraffine, or the transplantation of bone and cartilage. All methods have been successful and none should be overlooked. Of all the methods the paraffine is the simplest and if one follows Eckstein's directions, no untoward results will follow.

It must be remembered that commercial paraffine is a mixture of paraffines of various melting points, and these will separate, when subjected to different temperatures, so that when introduced into the body the paraffine should be uniform in melting point, and the melting point should be higher than that of the body. This can be obtained by fractional distillation only. Any other paraffine is dangerous on account of:

Firstly. Foreign toxic substances contained (antimony and arsenic) which may be eliminated by the distillation.

Secondly. A tendency to lodge in remote places (wandering) at a future date. I believe that this has taken place when a mixed paraffine or vaseline has been used, in spite of the strenuous contradictions of Gersuny and Moskowitz.

One case I saw in Vienna had typical paraffine discoloration of the whole face a few years after the injection of a vaseline-like mixture into the nose, and I can conceive of no other cause for the lesion save the wandering. This has never been known to occur with a fractionally distilled hard paraffine.

Thirdly. The liability to embolus in the eye veins; this has been reported and is entirely eliminated by pressure made on the sides of the nose.

If the paraffine is delivered semi-solid subcutaneously and not intradermally at the place hoped for, no damage will be done and the patient will be entirely satisfied, but there must be a complete knowledge on the part of the operator of the dangers and how to avoid them, and a correct armamentarium for the introduction of the paraffine. The ideal place for its use is in small irregularities in contour and depressions such as are seen (seldom at present) in cases where a high resection of the septum has been done.

In a few cases when the whole bridge of the nose did not require elevation, I have used a piece of cartilage of the septum, doing the whole operation in the office under local anaesthesia. The hairs of the nose are trimmed, face and nostrils cleaned with alcohol and tincture of iodine, and an intranasal incision made in the superior and lateral aspect about one centimeter from the tip; a sharp pointed elevator is then shoved up the bridge subperiosteally, if possible, to the required distance, and a bed made for the graft. This bed must extend well into the tip of the nose, as the tendency is for the graft to slip out at the artificial opening; this can be avoided by forming a pocket for the proximal end. Adhesive strips are then placed over the nose so as to reduce the bleeding and a resection of the septum done. The cartilage obtained should at once be inserted into its new bed and a closure made to avoid infection, the septum resection being completed later. Following the resection the nose is packed with iodoform gauze. The adhesive straps may be readjusted and kept in place for a few days, the packing is removed in twenty-four hours, and no further manipulation is indicated. Absolute cleanliness with non-handling of the graft is the secret of success.

The cartilage-bone rib transplant, or a bone graft from the tibia is a more major procedure, but is accomplished in the same way, the transplant of the required length and thickness being obtained by sawing and chiseling a portion of the rib or tibia. The rib does not need to be resected in toto, and in case there is a crack in the implant, it still may be used successfully, for the whole mass is replaced eventually by new bone, and only acts as a skeleton and stimulus for the actification of the osteoblasts.

The introduction of foreign bodies instead of bone was advocated by Barth under the delusion that the whole graft died, but Axhausen in 1908 proved beyond a doubt that part of the bone remains alive, and Eloesser states that although the hard bony matrix dies, the osteoplastic, the regenerative part, the periosteum and greater part of the osteoplastic marrow live. The work of Ely, in this connection, is epoch making; he states as a result of his painstaking researches, that for bone formation three things are necessary: "One—blood vessels; two—either a loose-meshed fibrous tissue or a homogeneous (cartilage) matrix, or a granular or nectotic material; three—a stimulus

* Read before the Forty-ninth Annual Meeting of the Medical Society of the State of California, Santa Barbara, May, 1920.

physiological or pathological, as the case may be. Neither periosteum or marrow is necessary for bone formation; neither of them "forms" bone in the proper meaning of the word. The presence of the bone is the stimulus to a certain extent for the bone formation." Important is it for us, as Eloesser says: "even in most unfavorable conditions, and in the presence of suppuration, all is not lost, the implanted bone is still substituted by living bone."

We are operating in a field that is entirely infected and may be led to feel that as soon as the infection occurs the graft should be removed, but that is not the case, as I have had infection in my own cases, and have seen it in other surgeon's work. In all instances, when we left the graft we got eventually a good result, even though enough sequestra came away to approximate the size of the original graft. Frequent irrigation in those cases helped the repair.

Ely claims that it is always best to place a bone graft next to bone so that the stimulus for bone formation will be increased and the blood vessel and osteoblast activity will be accelerated in both elements. This is why I try to elevate the periosteum over the nose in all cases.

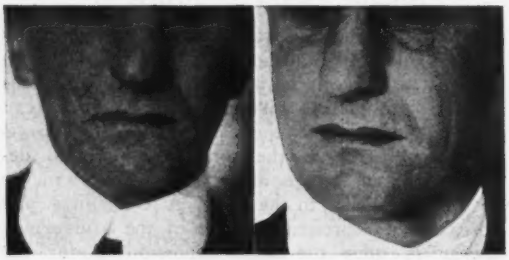
I have an X-ray picture of a case of bone cartilage graft taken two years after operation, which distinctly shows a decrease in the amount of bone present, but apparently shows no change going on in the cartilage. It appears to me by palpation that there is an enlargement of the cartilaginous part of the graft.

Ely and Fisher claim that cartilage is not regenerated; that it becomes absorbed and replaced by fibrous tissue but that would not seem to be the case in nasal work, as Fantozzi relates a case of some years' duration where there seemed to be no change, and refers to a reoperated case of Sicard which macroscopically and microscopically was unchanged. My cases seem to show no change after four years or more.

If the tip of the nose is lowered it may be necessary to support the dorsal graft by a vertical one placed in the columella. This is not an easy matter but can be accomplished successfully, the main difficulty being experienced in making the proper bed for the graft. This is best done as a two-stage operation.

In depressed fractures where the nasal bones have been jammed into the nasal cavity and have united to the maxillary processes in their new position I have refractured along the bridge, and also at the lines of the old fracture, have resected the septum, as there is always a closure of the nasal passages in these cases, and elevated the bridge, then by introducing an intranasal splint for a few days have obtained a good result.

If the nose was originally fractured by a blow from the side so as to produce a deflection of the nose, the fracture may be reproduced by placing a block on the opposite side and giving the nose a sharp blow with a wooden mallet. In case the septum does not need attention this may be all that is necessary. I have done this for ten years past, using a straight piece of steel cushioned at the nasal end, so as not to injure the soft tissue any more than is necessary. A piece of wood will do as well. In extreme cases it may be necessary to resect a V-shaped piece on the broader side.



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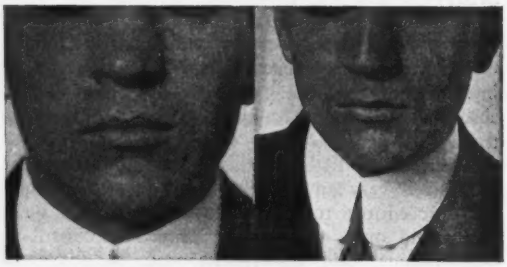

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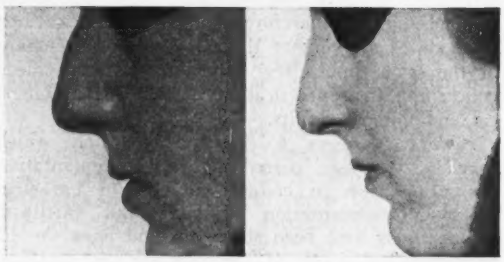
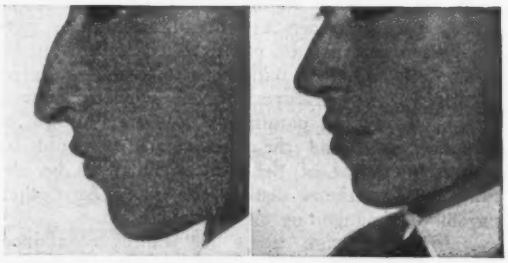


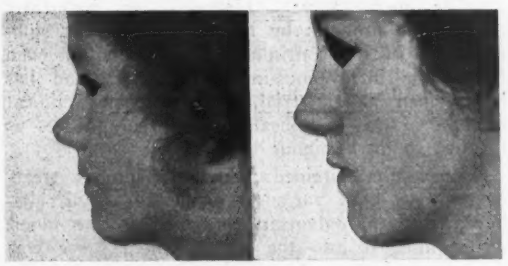
Reduction of Hump Nose



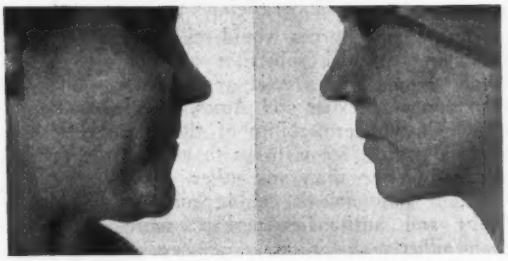
Shortening of Nose

If the nose is congenitally broad (most frequent in Roman noses) it may be remodeled by sawing through at the base, introducing the saw intranasally subcutaneously, and after loosening the nasal bones, fracturing and holding in place by an external splint.

The decreasing of the size of the nose is entirely a different chapter and requires different technic, different armamentarium, and more patience at the operation. The simpler cases may



Implantation of Cartilege from the Rib



Implantation of Cartilege from the Septum

be done under local anaesthesia, but I prefer a general anaesthetic for the more complicated cases, with a post-nasal tampon. The work may be done by an external incision or intranasally. In case of the former the knife should be a thin razor blade held at an obtuse angle to the surface, as though a skin graft were to be taken entering at one side and going through at the other side of the nose. Sutures should be horse-hair, which may be removed early. By this incision one is surprised at the small amount of scar after a lapse of six months. The cases that I have done by the external incision number four and have been confined to smaller elevations at the junction of the cartilage and bone, all being successfully shaved off with a chisel. Much more must be taken away than is apparently necessary at operation, as the wound seems to start a productive bone formation, leading to an increase in the hump rather than to a decrease. This was the result in one case that came to me after having been operated by another surgeon, and I found quite a mass of new bony growth. In addition there was considerable new fibrous tissue present. In this case I removed the whole bony cartilaginous area down to the mucous membrane.

One surgeon introduces a knife intranasally to this area, breaks it up by a number of slashes and leaves the particles in situ, but as I have not seen the cases a number of years afterwards, I am not prepared to pass on the results. I would expect, however, a productive inflammation to be set up which would produce a worse appearance than before the operation. This would certainly be the case if the elevation were very large.

Elliptical bony elevations of the bridge without widening of the base are removed by sawing through the side of the nose and septum from both nostrils, and fracturing the portion left sufficiently to prevent a flat appearance on top. In case the base is too wide for this procedure alone, the saw may again be introduced on either side of the base and the fracture line controlled. This is not an easy procedure and had best be practiced on a cadaver before an attempt is made on the living. The saw used is a bayonet-shaped one devised by Josephs.

In most of these hump noses the septal cartilage extends beyond the alae nasi and may be shortened by removing an angular piece submucously and drawing up the columella by sutures.

Cohen describes a method of reducing the hump noses, in which he does not remove the portion of bridge originally sawed through; this is simply subluxed into the nose and forms a new bridge. This method appears feasible but has not been tried by myself.

Collapse of the alae nasi are improved by implants of cartilage from the septum to hold them apart and bulging alae are corrected by removing the alar cartilages.

In hypertrophy of the end of the nose, cauliflower nose, Lesser of Berlin shaved off the redundant portion by means of a sharp thin knife, taking off as large masses as was necessary to produce a normal appearance. The new skin was produced from the epithelium of the glands and follicles, and in a few weeks was indistinguishable from that of the rest of the nose. Chipman recommends after the operation the application of resorcin paste to stimulate epidermization.

Josephs in order to shorten a long nose removes a V-shaped piece of the septal cartilage together with its soft parts and after raising the skin over the nose removes a triangular piece of the triangular cartilage by means of a curved scissors.

I have devised an operation which I believe does just as well and which is more simple. I remove the lower portion of the septum by submucous dissection and then trim off enough of the soft part of the incision to accomplish the shortening. Through two incisions on the alla nasi I now dissect the lower portion of the apical cartilages away and complete the operation by sewing the openings in the septum tightly together.

There is a tendency to a broadening of the tip through this operation, but it has not been objectionable. Josephs' removal of a longitudinal strip near the top of the nose would correct this if thought advisable. He does this by raising the skin and then by means of a biting forcep introduced into the nose, and well up under the skin, removes a longitudinal strip near the center, allowing the alae to overlap the median portion.

THE MODERN TREATMENT OF SYPHILIS OF THE CENTRAL NERVOUS SYSTEM.*

By H. G. MEHRTENS, M. D., San Francisco.
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It is only in the last ten years that the treatment of syphilis of the central nervous system has differed materially from that employed for visceral lues. Even after it became known that drugs seldom penetrated the choreoid, the intravenous

* A preliminary report of investigation conducted with the aid of the Interdepartmental Social Hygiene Board.

and intramuscular channels continued to be the main reliance. With these methods excellent results were obtained in some cases, while other cases were absolutely resistant.

With the introduction of the Swift-Ellis and other intradural methods, some of the cases intractable to other forms of therapy now cleared up clinically and serologically. Encouraged by these results, some men felt that every case of proven syphilis of the central nervous system should have the benefit of the intra-dural treatment from the start. Other clinicians still insisted that having obtained certain indisputably good results by the older methods, the newer ones were entirely superfluous. The unfortunate result followed that clinicians adopted one view or the other, and only too often treated all cases of cerebro-spinal lues by the same method, individual requirements of the case being entirely lost sight of.

Before attempting to decide the indications for the various forms of treatment, it would be wise to review our knowledge of the ability of a drug to penetrate the choreoid.

Nearly all investigators held that the choreoid was a complete barrier to the passage of drugs from blood stream to the spinal fluid. As early as 1902 Leri noted the presence of iodide in the spinal fluid of patients suffering with meningitis, who previously had received iodide by mouth. These observations are now thoroughly explained by the work of Flexner and Amos in their work on poliomyelitis; they showed that anti-bodies and even the virus of disease might be drawn from the blood serum to the spinal fluid by the introduction of certain irritants into the sub-arachnoid space. Apparently the irritation, no matter of what nature, whether the individual's own serum, true inflammation, or even, in a lesser degree, lumbar puncture, all tend to lower the barrier between blood and spinal fluid. In 1918 I reported to this society that sodium iodide, which normally cannot be caused to pass the choreoid, even by intravenous injection of two hundred grains, can readily be made to do so following a preliminary injection of blood serum.

Reiger and Solomon found that salvarsan injected intravenously appeared in the spinal fluid in 30% of cases.

This result tallied fairly well with the results we have observed clinically. About 40% of our cases of cerebrospinal syphilis improved markedly, subjectively, serologically, and in the increased capacity for work, under intravenous and intramuscular treatment. It therefore seemed to us that permeability of the choreoid to anti-luetic drugs occurred naturally in certain individuals (about 40%), and for these cases the intravenous and intramuscular treatments were quite satisfactory. The arsphenamine we give in courses of six to twelve injections of .6 grams each week —only occasionally at five-day intervals. During this time we combine the intravenous with the intramuscular mercury injections and iodide by mouth. After such a course we wait two or three weeks, giving tonics, forced feedings, hydrotherapy and care of the kidneys. We then repeat another such course. However, as frequently occurs, the progress by this method is not sufficient to justify continuing. Occasionally, even before the intravenous-intramuscular method has been given a fair trial, the distressing clinical symptoms, such as unbearable headaches, forces us to turn to intra-spinous therapy.

The results obtained from intra-spinous treatments have been variously explained. Swift believed that the salvarsan contained in the blood serum injected into the sub-arachnoid space was the potent factor. Critics have insisted that the amount of salvarsan thus injected was entirely too small to produce therapeutic results.

Ogilvie and Byrnes would still further increase the spirochetacidal substance by reinforcing the blood serum with arsenic or mercury. The explanation of Flexner and Amos, referred to above, in which the permeability of the choreoid is the essential factor, seems to us to explain the results obtained better than any other. It makes clear not only how arsenic could penetrate, but other drugs and anti-bodies perhaps more important than either.

In order to obtain exact information on this subject we irritated the meninges of one hundred patients with their own blood serum. After an interval of six hours .6 grams of arsphenamine was given intravenously. The amount of arsenic in the spinal fluid was estimated. The results show that arsphenamine given intravenously penetrates the meninges in 40% of cases. Complete drainage of the spinal fluid did not increase the number of penetrations. Preliminary irritation of the meninges caused intravenous arsphenamine to penetrate in 90% of cases and in three times as strong a concentration.

On the basis of these results we have applied this treatment to one hundred and fifty cases of syphilis of the central nervous system. The results, in brief, are slightly more satisfactory than in Swift-Ellis' or Brynes' treatments in the amelioration of clinical symptoms clearing up of the serological findings and freedom from relapses or complications. However, again, I would emphasize that the treatments should only be made in the sixty per cent. of cases in which the membranes are impermeable, and even in these cases there may be certain contra-inductions and limitations due to permanent destruction of tissue.

Clinically, drainage of the spinal fluid before or after intravenous arsphenamine did not, in our experience, compare with the methods described above, or with the Swift-Ellis treatments. Applied to every case of lues of the nervous system, it seemed effective in about 50% of cases, which is little better than can be accomplished by the intravenous-intramuscular treatment alone. Symptoms referable to increased cerebro-spinal fluid pressure are improved by drainage. Still even drainage does cause some meningeal irritation, as well as some vaso-motor dilation, as indicated by the pleo-cytosis of ten cells following the puncture. On this basis we can account for some therapeutic results, although less in quantity than by other methods. This method is indicated when pressure symptoms are evident and

when the facilities for intra-spinous treatments are lacking.

Everyone working with cerebro-spinal syphilis has noted cases which as results of previous treatments, or naturally fine veins, present an impossible subject for further intravenous treatments. The rectal administration of arsphenamine has been used clinically for some time. The dose is relatively small and while traces of arsenic were found in the blood and urine, a constitutional effect was not achieved. By gradually increasing the dose we are now using .4 grams of neo-arsphenamine in the thoroughly irrigated rectum. We have traced it through the blood and into the spinal fluid when the meninges were irritated. The usefulness of this method are obvious, and I hope to report a type of case in which this is the treatment of choice even with intact veins.

The clinical results of 1500 treatments for syphilis of the central nervous system, given in the last three years in the neurological service of Stanford University Medical School has brought out the following facts:

To get the maximum results, each case must be treated acccording to individual requirements—there can be no rigid routine treatment.

There is no greater danger in treating syphilis of the central nervous system than there is in treating visceral lues when a proper technique is developed.

Cerebro-spinal syphilis (meningeal type) was arrested in 80% of cases, intramuscular and intravenous therapy were sufficient in about 40% —of the remainder 35% were benefited by intraspinous therapy, and 15% improved somewhat but were not arrested. About 5% of cases diagnosed cerebro-spinal lues developed paretic symptoms. Headaches cleared up in 90% of instances —generally after one or two intra-spinous treatments.

Tabes—early cases—nearly all did well clinically. Some lightning pains recurred from time to time.

Late tabes showed marked improvement in about 60%, but there was no evidence to show returning function of reflexes—pupillary reaction or Romberg sign. There was sufficient improvement to send most of this class back to work.

In paresis the results were poor. A few cases went into remissions, but ultimately deteriorated and had to be committed. Several cases so diagnosed cleared up permanently, but this unusual result tended to make us doubt the original diagnosis. It does emphasize the benefit for a doubtful case of paresis.

It may be said in conclusion that our present methods of treating neuro-syphilis are by no means so successful as we would like to make them. Certainly the last word has yet to be said, particularly in the development of the intradural methods. Even so, we can feel that our present methods enable us to arrest cases intractible to the older methods and give us hope that the future will evolve methods which, used in time, will arrest a large majority of cases of neuro-syphilis.

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A NOTE ON THE QUALITY OF SOME DRUG PREPARATIONS SOLD IN AND AROUND LOS ANGELES

By H. L. WHITE and THOMAS WATSON.

Department of Chemistry, College of Physicians and Surgeons, Medical Department of the University of Southern California.

While giving instruction in volumetric analysis to the first year class of students in the College of Physicians and Surgeons, it was decided to extend the work to include a limited survey of the quality of four common drug preparations which are ordinarily prepared by each druggist and not purchased at some wholesale house. The preparations selected were lime water, diluted hydrochloric acid, tincture of iodine and Fowler's solution. The comparative non-volatility of these preparations and the ease with which they could be assayed had much to do with their selection.

The students purchased samples at any drug store that was convenient, but a more careful study was made of the output of drug stores in several blocks of two principal business streets and two business-residence streets of Los Angeles. Several "chain" stores were included in this survey. In addition several stores in Long Beach were visited and a few samples were obtained from other nearby towns.

The results of the assays are shown in the following tables:

LIME WATER

No. of Samples Assayed	Standard		Below Standard	
	No.	Per cent.	No.	Per cent.
30	18	60	12	40

The U. S. P. requirement for lime water is a content of not less than 0.14% calcium hydroxid at 25° C. The poorest sample assayed contained only 0.009% calcium hydroxid; two samples contained only 0.03% and four samples from 0.06% to 0.08%. Even stores on a principal business street sold lime water of the poor quality shown above.

DILUTED HYDROCHLORIC ACID

No. Samples Assayed	Standard		Above Standard		Below Standard	
	No.	Per ct.	No.	Per ct.	No.	Per ct.
23	4	20	12	52	7	30

The U. S. P. requirement for diluted hydrochloric acid is a content of not less than 9.5%, nor more than 10.5% hydrochloric acid. The strength of acid in the samples assayed varied from 2.77% to 14.10%. It so happens that both the sample lowest in acid and the one highest in acid were purchased at stores located on a principal business street.

TINCTURE IODINE (TOTAL IODINE)

No. Samples Assayed	Standard		Above Standard		Below Standard	
	No.	Per ct.	No.	Per ct.	No.	Per ct.
27	13	48	5	19	9	33

The U. S. P. requirement for total iodine in the tincture is a content of not less than 6.5 gm., nor more than 7.5 gm. of iodine in 100 cc. In

the samples assayed the iodine content ranged from 3.24 gm. to 9.8 gm. per 100 cc. Several stores operating under the same firm name sold a tincture that varied widely in its iodine content.

FOWLER'S SOLUTION

No. Samples Assayed	Standard		Above Standard		Below Standard	
	No.	Per ct.	No.	Per ct.	No.	Per ct.
28	14	50	1	4	13	46

The U. S. P. requirement is a solution containing potassium arsenite, corresponding in amount to not less than 0.975%, and not more than 1.025% arsenic trioxid. In the samples assayed the content varied from 0.09% to 1.10%.

We are indebted to P. F. Haber, P. C. Lawyer and John Rogers for their help in making the survey and assaying many of the samples.

Los Angeles.

State Society

PROGRAM NOTICE
FIFTIETH ANNUAL SESSION MEDICAL SOCIETY, STATE OF CALIFORNIA
CORONADO, MAY 11, 12, 13, 1921
NOTICE TO APPLICANTS FOR PLACE ON PROGRAM

Time Limit, December 31, 1920

Authors who plan to present papers at the coming meeting should bear in mind that last year papers on timely subjects and of more than excellent merit had to be refused because they had not been presented before the time limit expired.

A limit was placed on programs for past sessions because of the great number of papers presented to the Program Committee each year, many more applications being received than the time allotted would permit.

All applications are to be sent to the State Secretary's office with the following data:

1. Author's name and address.
2. Complete title of paper.
3. Abstract covering all the essential points to be discussed.
4. Information as to what materials will be required for presentation of paper.

RULES GOVERNING READING OF PAPERS AND DISCUSSIONS AT STATE SOCIETY MEETING

The following rules have been adopted by the Committee on Scientific Program:

Rules for Authors

1. Time allotted for each paper is fifteen minutes. The only exception to this rule will be the latitude allowed visitors from other States who come as guests of the Society.
2. No motion from the floor to extend the time of the author will be considered by the chairman of any section.
3. Each author will be allowed five minutes for closing the discussion of his paper.
4. Each author must prepare an extra copy of his paper and present the same to the officer presiding over his section before he will be eligible to read his paper.
5. Absolutely no paper may be "read by title." By consulting the program, which will appear in the Journal in due time, as well as the special program issued at the State meeting, each author can learn definitely when his paper is due to be read.
6. Failure on the part of an author to appear and read his paper automatically precludes the acceptance of future papers by such author for a period of two years.

Rules for Those Taking Part in Discussions

1. Openers are limited to five minutes.
2. Subsequent speakers are limited to three minutes.
3. The privilege of a second three minutes will not be granted to any one.

At the one hundredth and nineteenth meeting of the Council the functions of the Program Committee and the officers of the various sections of the program were defined as follows:

1. The section officers will have charge of assembling the program for their respective sections.
2. The Program Committee will be responsible for the assembling of the program for the general session.

In addition, as heretofore, the Program Committee will vise and finally arrange the entire program in conjunction with the officers of the various sections of the program.

3. All applications for places on the program should be forwarded to the State office for proper distribution to the various section chairmen and secretaries.

It will be noted that a new section (a General Section) has been created by the Council. This section will be a meeting where topics of interest to the profession at large can be discussed. This part of the program will be held at a time when the various sections are not convened, so that every one may be given an opportunity to be present. There will be two sessions, and they will be held on the first day of the meeting. The morning session will commence at 9 o'clock and continue at 11:30 o'clock, when the President's address, which has always been a part of the Tuesday morning's program, will be given. Everything else heretofore appearing on the program of the first morning will be dispensed with.

The second session will be held in the afternoon from 2 to 5 o'clock.

County Societies

CONTRA COSTA

The regular monthly meeting of the society was called to order by President J. M. O'Malley at Richmond, September 25, 1920.

On account of a request from some of the members for a different meeting night, it was unanimously voted to hold the meeting the last Wednesday of each month.

Following a discussion regarding the treatment of cases in the County Hospital of individuals who were able financially to pay for necessary care, it was moved by Dr. U. S. Abbott and seconded by Dr. Fraser that a committee of two be appointed to confer with the proper authorities with the object of having some assurance furnished that applicants to the hospital are entitled to such care and treatment before they shall be admitted.

Dr. J. T. Breneman of El Cerrito was proposed for membership.

Dr. Dudley Smith had been requested to present to the society the plans for campaigning against the four measures affecting the medical profession next November. Very interesting and valuable information was imparted and this society expressed itself eager and ready to co-operate with the league in its fight.

The paper of the evening was read by Dr. A. B. Spalding of San Francisco on "The Importance of the Parametrium," and the speaker emphasized complaints in the pelvis and lower abdomen variously diagnosed for the relief of which all kinds of operations have been done, but which he believes to be due in many cases to varicosities of veins in the parametrium. His operation for this condition was very prettily explained by lantern slides.

After adjournment a luncheon was served.

CLYDE T. WETMORE, Secretary.

FRESNO COUNTY

Fresno County Medical Society met in joint session with the Fresno County Bar Association, October 5, in the University Club rooms.

All business of the Medical Society having been attended to by its Board of Governors, the entire meeting was devoted to a discussion of "Law and Its Relation to Medicine."

The speaker of the evening, Professor A. M. Kidd of the Law Department of the University of California, presented the subject in a most interesting manner both from a legal and medical viewpoint. Active interest was shown in Professor Kidd's suggestion as to a move looking toward amelioration of existing conditions surrounding the handling of medico-legal cases.

The function of the medical expert was clarified by Professor Kidd when it was suggested that he should confer with the medical men of the opposition and then from the facts presented make a composite picture of the mental infirmity that could be grasped by the jury. This would do away with much quibbling and harsh feeling between lawyers and doctors.

The local Probation Officer, Mr. Sessions, opened the discussion of the evening with a letter from Judge Reese of Department 8, Juvenile Department, Los Angeles, Calif. The Judge is an ardent believer in modern, humane, scientific protection of the unfortunate mental delinquent. Mr. Sessions added an earnest plea to law and medicine for progressive and early relief of our barbarous present-day methods of handling these cases. Mr. Sessions also proposed the establishment of a psychopathic ward for Fresno, where proper care and study could be carried on.

Dr. Kjaerbye introduced a motion to the effect that a committee of three be appointed from each of the two societies to meet and formulate a plan looking toward the relief of our local problem of caring for the mental delinquent. This motion was carried.

President Hayhurst of the Bar Association requested an early meeting of the two bodies to consider the plans presented by the committee.

There being no further business, the meeting adjourned.

Fresno County Medical Society

Sunday afternoon, October 10th, there was a called meeting of the Fresno County Medical Society in the University Club rooms to hear Dr. Dudley Smith of Oakland present the plans for the campaign regarding medical legislation.

Dr. Smith stated that Fresno had been lukewarm in regard to The League for the Conservation of Public Health, but from the reception Dr. Smith received and the enthusiasm shown it is thought that Dr. Smith will carry back to Oakland a different opinion of the valley men.

Dr. Smith was accompanied to Visalia by a number of the local doctors to attend his meeting there.

All Dr. Smith's suggestions have been adopted and an active campaign has been started in Fresno.

LOS ANGELES COUNTY

County Medical Picnic.

The Council arranged a basket picnic, which was held at Sunland on the afternoon and evening of Saturday, September 11th.

The day was auspicious and the place was a beautiful grove of live-oaks hundreds of years old. The wide-spreading gnarled branches, intertwining with one another, formed a bower not surpassed by the fantastic imagery of a master-artist and, in truth, but few have had the privilege to have seen anywhere else an arbor so charming. It is a county park called Monte Vista, which suggests the hills and mountains round about.

Dr. William Duffield, the chairman of the arrangement committee, welcomed everyone in his cheerful way and made them feel glad they came.

Dr. J. Lee Hagadorn, chairman of the entertainment committee, in his inimitable drollery, entertained and also spoke on the serious problems confronting the profession.

Then was dancing, singing, playing and speaking. John S. McGroarty of the "green Verdugo hills" extended a welcome from his neighbors of these hospitable hills to the members of the society.

Dr. W. R. Molony, member of the California State Board of Medical Examiners, spoke effectively on the impending situation.

Attorney Castlelaw spoke on the legal aspect of the problem.

Dr. C. L. Sexton had charge of the barbecue. Two steers were roasted under the direction of Jose Romero in the old pioneer style of our beloved California. Coffee was served. There was no need of the box lunches for the luscious viands prepared in the half-forgotten primitive way so near to earth and man were plentiful and preferred to anything else.

Dr. J. H. Wolfe of the Lederle Laboratory was instrumental in getting five cases of Sierra Club ginger ale (?) from the company.

Mr. L. F. Duncan of the Little Lake Creamery donated the cream and butter for 500 people, due to the efforts of Dr. Sexton.

Dr. Duffield spoke last, but began by saying that the main object was fellowship and fraternity and to become better acquainted with our folks and friends. He only referred to the problem, the serious thing, so as not to mar the pleasure of the day, and began to distribute the printed matter that was to familiarize us with the approaching storm, and although the sun was setting and the photographer would no longer be denied his needs, every member understood and is prepared to wage the war in defense of our dear ones at home and for the good of the people we serve.

Los Angeles County Medical Association Smoker

At the Chamber of Commerce, Monday evening, September 20th, some of the delegates of the National Convention of the American Public Health Association, which met last week in San Francisco, were entertained.

The president of the Chamber of Commerce, Mr. Maynard McFie, welcomed the guests, saying that the Los Angeles Chamber of Commerce has 6700 members and is the largest in the country next to that of Chicago; that it represents industrial and commercial business. In 1918 it championed the citrus industry, then the harbor, foreign trade for raw material from South America and the Orient; that Los Angeles county was the first in the United States issuing bonds for good roads. The chamber has stood for education, the university, sanitation and public health. California has always been known as an extremely healthy place. Mr. McFie then introduced Dr. Julius Koebig as the chairman for the evening.

Dr. Julius Koebig expressed his regrets that the president had not shown up. In speaking of the good work the City Council has done, he called upon Councilman Wheeler.

Mr. Wheeler, as chairman of the Public Works Committee of the Council, spoke about the city's problems of garbage collection and the disposal of sewage. China, he said, is today largely a desert for lack of reforestation, and that Spain's forests and fleets disappeared for lack of timber to build ships. The engineers of Europe stand aghast in the disposal and utilization of sewage. Our bonds for that purpose were voted down. We must use sewage to advantage.

Mr. Paul Hanson, consulting sanitary engineer, garbage disposal, of Chicago, expressed appreciation on behalf of the engineers and spoke of the pleasure of seeing the remarkable engineering work in this city; the harbor, roads, sewage, garbage reduction works, and water works. He said that the engineers are usually lost sight of in public

health work. Garbage collection and disposal really means city cleaning. Ashes, rubbish, etc., all must be handled together, garbage being simply one element. City cleaning, from the engineers' point of view, is most complex and in a large community is subject to much criticism. There are three phases all interrelated. Most people think that disposal of waste is the only problem. First, there is the handling of wastes properly to separate them and put them in their respective places. Second, is collection, closely correlated to the men on the wagons who must be intelligent. The proper size of the wagons, the time it takes to convey the material to the dumping place are important subjects.

Incineration appeals to the esthetic sense. Reduction is for the purpose of reclaiming fertilizer grease for feeding of hogs, although it has an odor. Municipalities must consider all this. Dumping is proper when done in the right way, which must be studied and worked out according to local conditions.

Dr. Koebig, the chairman, said we are living here in a semi-arid place, without streams and lakes. Experience has taught that sewage must first be purified. He introduced Dr. Theodore D. Lafreniere, sanitary engineer, Board of Health of the Province of Quebec.

Dr. Lafreniere spoke on the "Sanitary Conditions in Canada," saying that a Federal Board of Health was recently formed in Canada. Generally speaking, these boards are all good, but that he knew more about conditions in Quebec. He expressed his surprise to hear that there was opposition to vaccination. In Canada they have compulsory vaccination, so that every child when admitted to school must show to have been properly vaccinated. The death rate of tuberculosis was to be reduced by educational work. Birth rate and high mortality were studied. For venereal diseases $130.000 per year was allotted and dispensaries and laboratories have been established. The law provides that every male is examined and must be cured before released.

The sewage problem in Canada is not so difficult, because of the big rivers, which are used for dilution of the sewage. The municipalities below are safe because of the big volume of water for dilution. Eighty-six per cent. of the population uses river water which has undergone treatment. Fourteen per cent. use river water without treatment. The municipality must find out whether it can afford it. The province issued six per cent. bonds and they were sold above par. There was a sinking fund of one per cent. Money can be lent at the rate of three and one-half per cent. for forty years. Water purification work is not sufficient. People get infected in smaller towns and contaminate those in larger cities. They endeavor to interest the Government. Co-operation is necessary. The river water is used to dispose sewage more economically.

Dr. McDonald of Florida thought we do things out here very big and that the problems of Florida are different. Diarrhoeal diseases give the greatest death rate; the water and the fly-borne diseases. There are the two distinct races, forty per cent. colored. The health department must reach the whole population. Public health begins at home by the nurses who report cases and tell how to prevent illness and contamination and how to feed children. Twenty years ago twenty-eight out of every thousand people died in Jacksonville. The colored cities have a higher death rate, 225 per 100.000 tubercular deaths: last year 130 per 100.000, which is less than the rate for the United States as a whole.

Dr. George Clemens Ruhland, Commissioner of Health, Milwaukee, spoke on Water Works and Sewage Disposal. He said that in 1870 the water in Milwaukee was obtained from private wells and the separate house which called forth typhoid. The city is located at the lake and its water supply caused typhoid to fall to 50 per cent. in two years. The sewage was emptied into the river and typhoid returned from drinking the lake water. Chlorine was then used to disinfect, but in the spring of 1917 the public did not like the doping, so that the water department shut off the chlorine. There was much rain and in ten hours 50,000 cases of acute diarrhea. There were 500 cases of typhoid during the past six years. Intercepting sewer systems then collected all sewage in a plant using the new activated method, the water being agitated by air—i. e., oxygenated. This process removes 90 per cent. of odors. Sludge collecting can be reduced by the activating method. The sediment is rich in nitrogen and proved a good fertilizer, selling for $15 to $20 per ton. It is an impalpable powder. The affluent will be sterile and there will be a filtration plant for water purification. Ozone cannot be depended on and is an expensive method, but filtrations with chlorination will make the water safe. The odor in 1917 was not due to chlorine. Below the city crude carbolic acid was manufactured at the rate of 120 tons in twenty-four hours. Tons of it went into the lake. It was shown that this and the refuse from coal tar gave the odor thought to have been due to chlorination. Chlorine can be driven off by heat. Dr. Ruhland remarked that the water supply here is fine, but the sewage disposal is an important problem for Los Angeles.

Dr. Leo K. Frankel, ex-President A. F. H. A., New York, on the Purposes and Aims of the A. F. H. A., said that the child shall live a hundred years. Life can be extended and prolonged. The day may come when we shall be no longer required to report child mortality but when the child shall reach a hundred years. The high mortality of tuberculosis occurs among the colored. Sanitation and hygiene produced the change in the last fifty years. The time will come when communicable diseases shall be eradicated. With 2000 cases of smallpox in 1919, we have not reached the summit. The human side of the problem was dwelt upon in garbage and disposal. Dr. Frankel urged that there should be no difference in service between citizens of Wilshire district and the worst localities, nor between sex, color, age, etc., whether living in crowded centers, congested quarters or living in ignorance of the ordinary rules of health. All should be taught what it means to carry out the rules of the health department. The human being should be considered just as valuable as the hog. There should be as much money spent for diseases of man as is spent for hog cholera.

Dr. Charles Hastings, the medical health officer of Toronto, entertained in a happy vein. In New York physical examination of people in the prime of life showed that they were suffering from some physical ailment due often to the strenuous life, the rush for the almighty dollar. How many persons have had an examination in the last five years?

Dr. Luther Powers and Dr. Wm. Duffield announced programs of entertainment for the following day.

Sept. 21, 1920, 8 P. M. Special Meeting of the Los Angeles County Medical Association in the Auditorium of the Normal Hill Center.

Dr. Rae Smith, the president, opened the meeting and invited Dr. Hugh S. Cummings, Surgeon-General of the U. S. Public Health Service, to speak.

Dr. Cummings said that there was no intention of creating an overwhelming federal authority over the state. Some functions belong to the state and municipalities and others to the federal government, such as control, physical and mental; the ports whence immigration would come from, and as a rule all the great health problems. When

control is lessened terrible health conditions result. There are many desirous of coming to our country. One of our safeguards was the German guard against Russian immigration. Every port on the Mediterranean has bubonic plague. There is trouble about reporting in time. We have to depend on ourselves to guard health. The most important is the co-operation of states in health matters, mental hygiene and children's diseases. A great problem was in connection with the war, the sick and wounded. It was thought Congress would take care of the men, but the Public Health Service got charge. There was overcrowding and a large number of ex-service men had to be treated to restore them to full citizenship. The ablest men after the war returned to private practice. It is hard to get the proper doctors. There is co-operation with the Department of Agriculture and the canning industry. The officers will tell of the details. Some of Los Angeles's problems are thought to infringe on personal liberty. We owe a greater duty to our country than to ourselves and you have no right to get sick even if you want to.

Dr. Geo. W. McCoy, chief of the laboratory department, U. S. Public Health Service, claimed to be a Californian, as he was stationed here some years ago.

In the treatment of tuberculosis, the government lacked the funds, but now there is available $50,000 a year. A staff for scientific investigators is being assembled. First a chemico-therapeutic agent must be found. Other subjects were spirochetal infection, typhus fever and the plague. Los Angeles had a case of plague ten or twelve years ago, developed from a ground squirrel. The city council said it must not be made public. The control of biological products opened a big field. A few years ago they were in chaotic condition. Now the U. S. Public Health Service has control of 99 per cent. of all preparations made. There are standards of toxins. We knew that salvarsan would be cut off with the opening of the war, but before the time it was needed we had men testing and manufacturing it.

Dr. Wm. Duffield moved that Dr. Luther M. Powers and Dr. McArthur be given a vote of thanks for entertaining the visiting sanitary engineers. The motion was unanimously carried.

PERSONALS

L. A. Doctors Who Went to San Francisco

There were 100 Los Angeles doctors in the delegation to the forty-ninth annual meeting of the American Public Health Association at San Francisco. This party included Dr. L. M. Powers, city health officer; Dr. W. T. McArthur, Dr. Walter Brem, Dr. Wm. Duffield and Dr. Irving Bancroft.

Dr. Milbank Johnson was married to Miss Isabel Simeral, Wednesday, Sept. 8. The wedding took place at the home of the bride's sister, Mrs. Allen Winter, Mariposa street, Altadena. The bride is a daughter of Mr. and Mrs. George H. Simeral of Bloomington, Ill. For the last four years she served as executive secretary of the Women's City Club of Cleveland, Ohio. Dr. and Mrs. Johnson will travel extensively in the East and will make their home here later.

Dr. Walter V. Brem at a meeting of the Men's City Club debated with Reynold E. Blight on the subject of compulsory vaccination. A lively discussion followed. Dr. Brem said: "We are not attacking any religious belief, but we do object to digging up the hatchet that has been buried for years between science and religion."

Dr. Frank K. Kidder of Los Angeles married Jessie M. Waltermath of this city, Sept. 1st.

Returned from Mayo Clinic

Dr. Harry G. Marxmiller has returned from a three-months' postgraduate course at the Mayo Clinic in Rochester.

HOSPITALS

University Hospital

This hospital will be located on East Washington street, between Maple avenue and Trinity street. It is to be built in the form of a letter H according to plans by Architect Herbert C. Howard. The six stories of structural steel frame will cost $600,000 and accommodate 250 patients, beside operating rooms, kitchens, baths and administration offices.

Hollywood Hospital

The hospital will be erected at Highland and Cahuenga avenues at a cost of $500,000.

Edward G. Hawkins and Benjamin D. Raines organized the company and the following medical advisory board was appointed:

Dr. Edwin O. Palmer, chairman, general medicine; Dr. F. K. Collins, secretary, surgeon; Dr. S. M. Atkins, general medicine; Dr. W. W. Richardson, surgeon; Dr. W. C. Duncan, internal medicine; Dr. Fred J. Old, ear, nose and throat; Dr. Albert Soiland, X-ray and radio; Dr. Paul K. Sellew, eye; Dr. C. Toland, surgeon; Dr. Charles Phillips, surgeon; Dr. R. L. Cunningham, internal medicine; Dr. W. E. Deering, obstetrics; Dr. Elliott Alden, surgeon; Dr. Dudley Fulton, internal medicine; Dr. L. C. Frost, pathology.

Dr. Sharon M. Atkins originated the plan. It is to be on a five-acre site and accommodate 115 patients.

Pasadena Hospital

Plans for the hospital have been drawn by Architect Myron Hunt. Dr. C. D. Lockwood presided at a meeting of Pasadena physicians to discuss the structure.

Receiving Hospital

The City Council plans to have the Receiving Hospital moved from First and Hill streets to Normal Hill Center. J. J. Backus, city building inspector, advised the council that the old Normal School building could be remodeled at a reasonable cost for that purpose.

Psychopathic Laboratory

The Board of Supervisors ordered the organization of a psychopathic laboratory for the examination of adult criminals and county charity charges. The matter had been presented by the Psychopathic Society of Los Angeles and a number of superior judges. It is believed that it will save many thousands of dollars hitherto expended in judicial proceedings.

Segregation Homes for the Aged

The State Board of Charities and Corrections urged segregation of such institutions into two classes. There are many old folks' homes receiving patients suffering from senile dementia and other psychopathic cases. A commission to which such institutions are amenable should make frequent inspections.

Army Hospital

Camp Kearny was chosen Sept. 23 by Hugh S. Cummings, Surgeon-General of the U. S. Public Health Service, as the best site for sick and wounded soldiers and former service men. He will urge Congress to appropriate $100,000 for that purpose.

$200,000 Laboratory

A new physics laboratory building of the California Institute of Technology is to be started early in October. Dr. Norman Bridge of Los Angeles has given $200,000 for this structure and it will be named after him. Dr. R. A. Milliken, director of physical research at the institute, and the faculty of the University of Chicago have approved the plans.

MISCELLANEOUS

New Outfall Sewer

Major John A. Griffin, city engineer, started the educational campaign for bonds for a new outfall sewer needed to meet the city's rapid growth. A bond issue of approximately $12,200,000 is to be

voted on next spring. He states that the amount of sewage discharged into the present outfall sewer will reach the capacity of its conduit in the next three or four years. The new one proposed will require that time for building. The new sewer is to interrupt the flow in the western part of the city at Rodeo road and Arlington avenue to Adams and Washington streets, then to Baldwin hills and to near Inglewood. Intercepting sewers for East Los Angeles and branch sewers are planned to meet all requirements for a population of 3,000,000 in 1950, if Los Angeles grows at the rate of the last ten years.

ORANGE COUNTY

The October meeting of the Orange County Medical Society was held at the chapel of the County Hospital. Dr. Harlan Shoemaker of Los Angeles delighted the members present by an address on the "Surgery of the Abdomen," relating many personal experiences.

Dr. P. T. Magan of Los Angeles spoke of the "Quack Quartet" and distributed some interesting literature on the three initiative and one referendum measures which affect the public health. A committee of five members was appointed to look after Orange county's duty in protecting the public from having its public health protection destroyed in November at the polls.

Several members who have been away during the summer have returned to their practices, after having spent more or less time in post-graduate study.

Dr. Burlew will describe at the next meeting a recent trip to Eastern clinics.

Drs. Johnston and Wickett have purchased the Fullerton Hospital.

SACRAMENTO COUNTY

Regular monthly meeting of the Sacramento Society for Medical Improvement was held at the Hotel Sacramento September 21, after two months' vacation.

Dr. N. G. Hale reported a case of double ureter in a woman, age 43 years, who had had pain in the lumbar region for 22 years, with no actual renal colic; urine loaded with pus and phosphates; cystoscopically, bladder showed two openings on the right side, ½ cm apart; two catheters could be passed to separate kidney pelves; pyelogram showed right kidney pelvis to consist of two separate parts; the upper pelvis looked superiorly instead of internally; the other had a sharp angle downward and forward; infection was confined to one kidney pelvis. This is not such a rare condition as has previously been thought, but is generally found and diagnosed at autopsy.

Dr. Lindsay reported the case of a man, run over by a Ford, whose only complaint for several months was a pain in the back of the neck and a numbness in the thumb; X-ray disclosed a fracture of the third and sixth cervical vertebrae.

Paper of the evening was by Dr. Gundrum; subject, "The Diagnosis and Treatment of Pyo-Pneumo Thorax," a summary of which follows:

Hippocrates recognized empyema and advised operation for its cure. Celsus, however, did not advise surgical operation of thoracostomy and this fell into disuse for some 1500 years. The greatest difficulty that the ancient physicians had was in diagnosis; there were no means at hand of telling whether the chest contained pus, clear fluid, or consolidation of the lung. The nineteenth century brought a great change through the introduction of the stethoscope by Laennec in 1818, the hypodermic needle by Wood in 1855, and antisepsis by Lister in 1865. Since that time it has been a matter of great simplicity to determine the contents of the pleural cavity before it is opened.

Treatment of this condition is drainage, but the method of drainage must vary with the condition of the patient, the infecting organism and mechanical factors. Open drainage has been the method of choice and has been very successful in the pneumococcus cases which come usually after immunity has been at least partially established. In streptococcus cases where empyema often occurs early in course of the infection, it is often necessary to use intermittent drainage by aspiration as a method of choice until some immunity has been developed. Tuberculous empyema is usually treated by aspiration. Double empyema occurs in some three or four per cent. of cases and it is practical according to the work of McKenzie to drain both sides at the same time, or better with interval of a day or two between the operations on the two sides.

At this meeting a new staff was selected to serve for the ensuing quarter at the County Hospital: Surgery, Dr. W. K. Lindsay; medicine, Dr. R. M. Bramhall; gynecology, Dr. C. E. Turner; pediatrics, Dr. W. A. Beattie; obstetrics, Dr. C. L. Bittner; nose and throat, Dr. C. B. McKee; genito-urinary, Dr. C. A. Dahl.

SAN DIEGO COUNTY

Two enthusiastic meetings of the county society have been held during the past few days; both of these have been devoted to generating energy and enthusiasm for the fall drive for votes preceding the polls of November 2nd. The first of these meetings was addressed by Drs. Walter Brem and T. W. McCarthy of the Los Angeles Society. The second meeting was in the hands of President Kinney of the San Diego County Society, and took the form of a dress rehearsal, coaching local efficiency elements in their work of the next few weeks. It will not be the fault of organized medicine in San Diego county if the "quack quartet" carries here on November 2nd. Every member of the County Society is doing his bit and doing it vigorously.

President Kinney addressed the University Club members at their after-luncheon talk on Friday, October 8th. The members of the County Society are looking forward with pleasant anticipation to the proposed visit to El Centro, November 13th, on which occasion the two societies of San Diego and Imperial counties meet in joint session to discuss the broad subject of "Peptic Ulcer" in its various phases. Dr. Thomas O. Burger is attending the conference of the American College of Surgeons at Montreal, Canada. Dr. B. J. O'Neale and Dr. Joseph F. Grant have recently been extended fellowship in the American College of Surgeons.

SAN FRANCISCO

During the month of September, 1920, the following meetings were held:

Proceedings of the County Medical Society

Tuesday, September 14—General Meeting.

1. Pathology of thyroid disease.....Wm. Ophuls
2. Basal metabolism in thyroid disease..... ..... Albert Rowe
3. Medical treatment in thyroid disease..... .....W. W. Boardman
4. Surgical treatment in thyroid disease..... .....W. I. Terry

Tuesday, Sept. 28—Eye, Ear, Nose and Throat Section.

1. Demonstration of cases.
2. Industrial eye injuries.....E. F. Glaser
3. Loss of vision in the industrial sense and its relation to compensation..Hans Barkan
4. Compensation of eye injuries..Morton Gibbons
5. Relation of the specialist to the Industrial Accident Commission..Mr. W. J. French, President Industrial Accident Commission.

ANESTHETISTS' MEETING

The regular monthly meeting of the Northern California Society of Anesthetists was held October 14, 1920, at the County Medical Building, San Francisco. The program was as follows:

Discussion of shock.....Dr. Henrietta Duggan

The four Anti-Health Measures..... .....Dr. Mary E. Botsford

Presentation of the recently proposed Universal Anesthetic Record..Dr. Caroline B. Palmer

Résumé Current Anes. Literature..... .....Dr. L. A. Rethwilm

SAN JOAQUIN COUNTY

The regular meeting of the San Joaquin County Medical Society was held Friday evening, September 10th, at the Hotel Lincoln, Dr. R. T. McGurk presiding in the absence of the president and vice-president. Those present were: Drs. R. T. McGurk, B. J. Powell, N. E. Williamson, J. T. Davison, L. R. Johnson, L. Haight, J. W. Barnes, F. S. Marnell, W. C. Adams, Grace McCoskey, W. T. McNeil, H. C. Peterson, Minerva Goodman, H. J. Bolinger, J. P. Martin, J. E. Nelson, J. D. Dameron, E. A. Arthur and D. R. Powell, Dr. Chapman of Stockton and Dr. R. Peers of Colfax as guests.

A letter was read from the League for the Conservation of Public Health, in which the four anti-public health initiative measures were discussed. Concerning the last communication, Dr. Goodman, representing the Red Cross, stated that that organization was having display space at the County Fair and volunteered to use part of the wall space for any placards that might call the public's attention to the advisability of defeating the anti-public health measures. A committee of three, consisting of Dr. Goodman, Dr. R. T. McGurk and Dr. D. R. Powell, was appointed to cooperate with the Red Cross in making such display against these measures.

There being no further business, the chairman introduced the speaker of the evening, Dr. Robert Peers of Colfax, who spoke on "Artificial Pneumothorax in the Treatment of Pulmonary Tuberculosis." He spoke of his experience at Colfax, where they had used the method only in those cases where the ordinary procedure had failed to give relief, the patient going down hill rapidly. It was used first to produce rest to the affected lung, second, to apply pressure to a bleeding point; third, to remove toxic fluid and replace air to prevent adhesions.

He spoke of the difficulties in the method and some of the technical dangers and the long period of treatment necessary and a great economic loss. He reported the statistics of 112 cases, showing the number improved, and the figures and results more than justified the effort made. There was a very general discussion, after which Dr. Peers courteously answered many questions.

Before adjourning the secretary called the attention of the members of the society to the fact that our first vice-president, Dr. Hudson Smythe, had recently been guilty of matrimony, and it was moved, seconded and carried that the secretary express, on behalf of the society, their felicitations on the happy event. The meeting adjourned at 10:15 to partake of light refreshments and a social hour.

STANISLAUS COUNTY

Members of the Stanislaus County Medical Society met Friday night, October 8, for their regular monthly meeting at the Hotel Modesto. A fine banquet was served, after which Dr. Harrington B. Graham, professor at Stanford University, delivered an address on "The Effects of Nasal Stenoses," which was thoroughly appreciated by the twenty-two members present.

The society meets on the second Friday of each month and all doctors in Stanislaus county are invited to become members.

Department of Pharmacy and Chemistry

Edited by FELIX LENGFELD, Ph. D.

Help the propaganda for reform by prescribing official preparations. The committees of the U. S. P. and N. F. are chosen from the very best therapeutists, pharmacologists, pharmacognosists and pharmacists. The formulae are carefully worked out and the products tested in scientifically equipped laboratories under the very best conditions. Is it not plausible to assume that these preparations are, at least, as good as those evolved with far inferior facilities by the mercenary nostrum maker who claims all the law will allow?

Dr. Harvey W. Wiley is a prominent figure in the movement to deprive physicians of the right to prescribe and the druggists to dispense alcoholic liquors. Anything that Dr. Wiley says will receive careful consideration from many millions of thinking people, and any movement he backs is liable to succeed unless there be organized and determined opposition. Dr. Wiley's reasons are not those of the rabid prohibitionist. He would make the change to maintain the good name of physician and pharmacist. He points out that, though a very large majority of all physicians and pharmacists are careful and law abiding, there would always be a certain number who would do anything for the almighty dollar, and already the public is beginning to state that anybody with the money to pay the physician's fee can get a prescription for liquor whether he need it or not. Dr. Wiley would have the right to prescribe relegated to official physicians, either those of the Army, Navy or Public Health Service, or physicians appointed especially for this purpose and prescriptions to be supplied only in a central Federal dispensary. Dr. Wiley does not consider the tremendous inconvenience to which the patient would be put or the great opportunity for graft and political intrigue in such a system. Nor does Dr. Wiley consider the great leverage which acts of this kind would give the arguments of the Christian Scientists, anti-vivisectionists and anti-vaccinationists. If the physician cannot be trusted in a matter of this sort, these people would argue that he cannot be trusted in more important matters involving life or death. Besides such action would probably soon lead to similar action as regards narcotics and the physician would find himself deprived of the right to use drugs which are absolutely necessary. The physician should bear in mind that the crisis may be reached at any time, and he should do his best to prove that the physician is worthy of his trust. The druggist is altogether in the hands of the physician. Unfortunately, there are a certian number of so-called drug stores which are more interested in selling liquor than in selling drugs, and already at least one grocery firm has opened a drug store and openly advertised in the public press, soliciting this business. The physician can soon stop this if he will. The regulations require that the physician must state upon the prescription the name of the druggist who is to fill the prescription. Many physicians have hesitated doing this, notwithstanding the law, for they feel that it appears as though they were trying to force the patient in a particular store. However, the physician can ask the patient where he wishes the prescription filled, and if he wants it filled at a reputable store he can then put that name on the prescription. If he finds that the patient wants it filled at a liquor store masquerading as a drug store, he can call the matter to the attention of the patient and absolutely refuse to send prescription to such a place. If the physician will do this, and if the physician will remember that whether he favors prohibition or not, the Eighteenth Amendment is the supreme law of the land, Dr. Wiley's movement will undoubtedly fail.

However, quite a few physicians and druggists would welcome any change by which they would be taken out of the liquor business. A physician finds it rather unpleasant to refuse the request of an old friend or patient for a whiskey prescription, especially if he likes a cocktail or highball occasionally himself. The reputable druggist finds that the red tape, petty annoyances and responsibility more than make up for the profit he makes on the sale of liquor, and he would welcome the establishment of a Federal dispensary excepting that it would still further interfere with the legitimate use of alcohol in pharmaceutical preparations and would establish a bad precedent.

Clinical Department

REPORT OF EXTENSIVE FRACTURE AND DISLOCATION OF 5th AND 6th VERTEBRAE WITH RECOVERY

Wm. K. Lindsay, M. D., Sacramento, Calif.

Mr. E. C., age 34, native of Calif., weight 155 lbs., height 5 feet, 8 inches, robust build.

June 18, 1920 at 9:15 p. m., he stopped his Ford car on a slight hill, stepped out in the dark and opened a gate, the brakes gave way, letting the automobile run forward knocking him down and passing over him, the body sustained the weight of the automobile from the transmission housing resting across his neck.

Mr. C. was stunned but succeeded in picking himself up and walking a distance of three-quarters of a mile to his home, where he arrived much exhausted and went to bed, where he remained for four weeks. He got up and was about the house until Aug. 2, when he came to my office complaining of stiffness of the neck, and numbness of the right thumb, and pain through the shoulders.

Dr. Harold Zimmerman reports, "X-ray examination of the cervical spine shows fracture dislocation of the 5th and 6th cervical vertebrae. The body of the 5th is displaced, completely separated from its spinous process. Small fracture of the body of the 6th. Naturally this gives rather sharp angulation in both the anterior, posterior and lateral projection. Considerable callous formation is seen.

"Shoulder plates show no definite fracture, but slight dislocation of the left acromio clavicular articulation."

After consultation with Dr. Harry Sherman of San Francisco, who concurred in my findings, I advised Mr. C. to return to his home and be very cautious for another six weeks.

Sept. 8th he returned to my office much improved, but still complaining of some numbness of the right thumb, with considerable stiffness of the neck.

The second X-ray reveals: "Examination of this date, shows fracture, dislocation of the 5th cervical vertebrae, as reported before with the fragments in the same position and relation. They seem to be sufficiently immobilized in this position by callous formation."

It is evident that the complete separation of the laminae from the body of the 5th vertebrae sufficiently relieved the angulation of the cord and prevented troma or severing of the cord and fatal termination.

THE USE OF BENZYL-BENZOATE IN SEASICKNESS

T. H. Glenn, M. D., Los Angeles

The efficiency of benzyl-benzoate in the relief of spasms of the smooth muscle tissues has been amply confirmed. Many of us have seen marked relief follow the administration of this drug in dysmenorrhea, cardiospasm, pylorospasm, pain in gastric ulcer and in certain forms of asthma. Hiccoughs yield to its use and, recently, Macht has reported good results following its use in whooping cough.

The striking results obtained in the above conditions led the writer to suggest the use of benzyl-benzoate in seasickness.

An opportunity to try out this drug in seasickness came when the secretary in our office decided to take a boat trip from Los Angeles to Seattle. At my suggestion, she took some benzyl-benzoate along.

Soon after leaving Los Angeles harbor, she became ill, took ten drops of benzyl-benzoate and received almost instant relief. At night, when she returned to her room, she found the woman in the upper berth violently ill. She was given ten drops of the drug and almost at once the groans and vomiting ceased. The woman was so still during the night that our secretary was afraid that she had killed her and was greatly relieved when she awoke the next morning to find the woman perfectly happy.

A telephone operator desired to go to Catalina for her vacation but feared the trip as she had always been seasick when riding on a steamer. At our suggestion she took benzyl-benzoate along. She became ill soon after leaving the harbor and took ten drops of the drug. Her symptoms disappeared very rapidly and she enjoyed a sea voyage for the first time in her life.

The writer's wife was attacked with seasickness soon after leaving Catalina. She was so ill that it was with difficulty she could swallow ten drops of benzyl-benzoate in water. The effect, however was immediate. The desire to vomit disappeared and she was able to enjoy the remainder of the voyage. Several others, who had been attacked with seasickness on the ship were given ten drops of the drug with instant relief.

While the number of cases in which benzyl-benzoate has been used in seasickness, at the suggestion of the writer has been small, about twenty in all, the result in every case in which it has been used has been so satisfactory, that the writer feels justified in recommending the use of this drug in all cases of seasickness.

In our cases, ten drops of the drug were used, a small dose. One-half to a teaspoonful can be given with safety. As the sea voyage was short in all our cases, we were not able to determine how long the effect of the drug will last. The results in our cases have been uniformly good and warrant a further study of the effects of benzyl-benzoate in seasickness. It may be that in benzyl-benzoate we have a drug that will make many a seasick victim happy.

CASE HISTORIES FROM THE CHILDREN'S DEPARTMENT, UNIVERSITY OF CALIFORNIA MEDICAL SCHOOL AND HOSPITALS

Case No. 11. February 16, 1920. J. M. Male. Italian. Age, 3 years.

Complaint: Headache, vomiting, "puffiness" of face and legs, prominence of abdomen.

Family History: Father, mother and four brothers and sisters all living and well. No history of miscarriages, of tuberculosis or of kidney disease in the family.

Past History: Full term, normal delivery, breast fed for 15 months and did well. Development normal. Has never had a previous illness, and there is no specific history of scarlet fever, colds, throat or other infections. The only significant point is the onset, two weeks before entry, of a crusting, scattered, discrete superficial skin rash (impetigo).

Present Illness: The child was well except for the above noted rash until one week before entry. The mother then noted a general "puffy" appearance with definite swelling of the face and extremities. He did not complain and played as usual. Polydipsia was noted at this stage. Three days before entry the child developed headache and vomiting. He was confined to bed and his food, but not his fluids, restricted. There was polyuria, nycturia and the urine was dark colored. The temperature was apparently not elevated.

Physical Examination: Well-developed and nourished Italian boy of 3 years, with generalized oedema anasarca, lying quietly in bed, not in distress. The skin shows diffuse scars of a recent impetigo but no other rash or evidence of fading or exfoliating rashes. No cyanosis or jaundice. Eyes negative except for infra-orbital oedema, pupils equal, circular and react to light and distance with no pathological findings in fundi. Ears negative to external and internal examination. Nose negative. Lips normal. Teeth negative. Tongue coated. Tonsils moderately enlarged, not cryptic and showing no exudate. Pharynx entirely negative except for a fine lymphoid hypertrophy. Cervical glands not enlarged. Lungs negative except for reduced expansion at the bases. Heart negative to auscultation, percussion and palpation. Abdomen protuberant, rounded, fluid wave and shifting dullness of a large amount of ascitic fluid present. Palpation yielded no information, due to the presence of fluid. Genitalia, marked oedema of scrotum. Extremities, impetigenous scars diffusely scattered. Generalized rather extreme oedema. Reflexes normal.

Laboratory Examinations and Course:

Feb. 16, 1920. Throat culture: micrococcus catarrhalis predominates. Von Pirquet slightly positive to human and bovine; Wassermann in blood serum negative.

Blood: Hemoglobin 70%.
R. B. C. 3,680 000.
W. B. C. 20.100.
Differential-polys. 66%; lymphocytes 25%; large monos. 9%.

Feb. 18, 1920. Phenolsulphonephthalein excretion. Total, 2 hours, 18%.

Blood: Urea nitrogen, 46 mgm. per 100 cc.
Non-protein nitrogen, 61.2 mgm. per 100 cc.
Chlorine. 7.05 grams per liter.
Plasma CO$_2$-59.5 volume per cent.
Sugar, 0.071%.

The child is on a salt free diet with restricted fluids.

Urine: Acid, albumin cloud, sugar 0, blood +. A few coarsely granular and cellular casts, R. B. C. + + +; pus +.

Feb. 19, 1920. Urine culture, B. coli, staphylo-

Feb. 19, 1920. Urine culture, B. coli Staphylococcus albus.

L. W. Hill's Specific Gravity Fixation Test gave the following data:

Fixation of specific gravity at a moderately low point with a maximum variation of 4 points.
No polyuric response to meals.
Night urine normal in amount (340 cc.) but of low specific gravity.
Chlorides: Day, 0.65% (2.94 gm.)
Night, 0.87% (2.99 gm.)
24-hour total, 0.75% (5.93 gm.)
Intake, 2.00 gm.
Difference, 3.93 gm.
Therefore a negative balance for salt and water (output 786 cc., intake 745 cc.)
(On account of the presence of blood in the urine the nitrogen determinations were not made.)

Feb. 24, 1920. Phenolsulphonephthalein Excretion:
1st hour 12%
2nd hour 15%
Total 27%

Feb. 26, 1920. Radiographs of kidneys, ureters and bladder entirely negative.

Feb. 29, 1920. Marked improvement in oedema.

Mar. 2, 1920. Phenolsulphonephthalein Excretion:
1st hour 5%
2nd hour 40%
Total 45%

Mar. 3, 1920. Diet to contain 1500 calories, with protein restricted to 10 gm.

Mar. 5, 1920.
Non-protein nitrogen.....33 mgm. per 100 cc.;
Urea nitrogen.....10 mgm. per 100 cc.;
Creatinin .....1.12 mgm. per 100 cc.
Patient steadily improving.

Mar. 10, 1920. Protein in diet increased to 15 gms.

Mar. 18, 1920. Phenolsulphonephthalein Excretion:
1st hour 30%
2nd hour 30%
Total 60%

Mar. 24, 1920. The protein sensitization tests of 17 varieties of proteins, including bacterial, were all negative.
Diet to contain but 10 gm. of protein.

Mar. 31, 1920. Phenolsulphonephthalein Excretion:
1st hour 34%
2nd hour 14%
Total 48%

Apr. 13, 1920. L. W. Hill's Specific Gravity Fixation Test gave the following data:
"No fixation of specific gravity. Variation 22 points.
Night urine small in amount and of high specific gravity.
Percentage elimination of salt is the same day and night and a little low, but total salt is excreted. Percentage elimination of nitrogen is low during the day (0.41%), so that for the volume of urine excreted there is a poor excretion at night, the percentage rises to a normal figure (1.46%). There is nitrogen retention apparently due to the poor excretion during the day.
This is a distinct improvement over the findings of Feb. 19th.

Apr. 19, 1920. Child to remain on "Hill Diet."

Apr. 23, 1920. Child on regular diet.

Apr. 29, 1920. Phenolsulphonephthalein Excretion:
1st hour 50%
2nd hour 8%
Total 58%

May 5, 1920. L. W. Hill's Specific Gravity Test gave the following data:
No fixation of specific gravity, maximum variation 12 points.
Night urine small in amount (132 cc.), but of high specific gravity.
Percentage elimination of salt falls at night, but a good average amount of salt is excreted.
Percentage elimination of nitrogen rises during the night.
Nitrogen output is rather low.
Total urine 740 cc. Chloride, 0.7% (5.25 gm.). Nitrogen, 0.58% (4.31 gm.).
Conclusions: Approximately normal function.
May 15, 1920. Discharged in good condition on low protein diet.
Urinalyses during residence showed a steady decrease in the quantity of albumin and in the number of casts and cells.

Diagnosis: Nephritis, Acute Infectious (Acute Diffuse), probably streptococcic following impetigo.

Discussion: This case report is presented at length because of the demonstration of the value of the functional tests in prognosis and as an aid to intelligent supervision of the nephritides.

The phenolsulphonephthalein test is one of the simplest and most valuable, although it is not of its greatest value in acute conditions, for a very low output may be registered (the normal for a child is 70-76% for the 2-hour period), indicating severe damage, but this may have no relation to the ultimate outcome. Acute damage with congestion and cloudy swelling may reduce the phenolsulphonephthalein output, as in this case, to 18%, which in a chronic case would indicate either approaching uremia or speedy death, whereas in the acute form no such prognosis need be entertained.

A modified Mosenthal Test as elaborated by Hill gives (in cases without oedema) an index of the permeability and function of the kidney as determined by means of a fixed diet and an estimation of the specific gravity of the urine at 2-hour intervals. Fixation of specific gravity indicates a diseased condition. Normally a fluctuation of many points should be registered. As evidenced at the onset of this case, fixation was marked, and instead of a high specific gravity, which is to be expected in the smaller amount of night urine, there was a low one. This steadily improved during residence until at discharge there was a normal range.

Blood analysis for the determination of the non-protein nitrogen yields the greatest information. Retention in the blood of substances normally excreted by the kidneys indicates kidney damage. The normal non-protein nitrogen in the blood should vary from 25-30 mgm. per 100 cc. and the urea nitrogen from 12-15. In the case reported at the first examination, the non-protein nitrogen was 61.2 mgm. per 100 cc. and the urea nitrogen 46 mgm. per 100 cc., indicating a considerable degree of impairment of function and therefore retention in the blood. At the examination one month later the non-protein nitrogen had been reduced to 33 mgm. per 100 cc. and the urea nitrogen to 10—practically, in other words, to a normal figure. Creatinin being readily eliminated, serves, when it is retained in the blood, as a delicate indication of the extent of kidney damage (1 – 2 mgm. per 100 cc. of blood is the normal figure). Figures above 3.5 mgm. usually give also a high urea retention, but below 4 mgm. improvement may be expected. Above that figure great damage has been done and the prognosis is correspondingly guarded.

The treatment of acute nephritis in children involves two principles, namely: the reduction of fluid intake during the acute period (it is later to be increased) and the reduction of the protein intake to a minimum, thus saving the kidney from over activity during its period of impaired function. The classification of Moschcowitz for the nephritides includes, among others, that of glomerulo-nephritis, or nephrosis, which gives the picture of oedema, ascites, etc., in contra-distinction to the arterio-sclerotic form and is essentially a kidney disease of the young. In this particular type, because of the fact that there is an increase in the lipoids and cholestrol bodies and a reduction in the protein, Epstein has had very interesting and satisfactory results by feeding a high protein. This, however, must be further investigated before its value is entirely established.

State Board of Medical Examiners

ANNUAL MEETING OF BOARD

Board of Medical Examiners of the State of California held its regular annual meeting at the State Capitol, Sacramento, California, October 18 to 21 inclusive.

The incumbent officers were re-elected for the ensuing year, namely:

P. T. Phillips, M. D., Santa Cruz, President; Harry V. Brown, M. D., Glendale, Vice-President; C. B. Pinkham, M. D., Butler Building, San Francisco, Secretary-Treasurer.

The usual business calendar was completed, and on Tuesday, October 19, legal hearings were held.

Phillip Dyment of Pasadena failed to appear before the Board to show cause why his reciprocity license to practice in California, based on his Georgia certificate, should not be revoked, inasmuch as the Georgia Board revoked his original certificate issued in said state upon a showing that Dyment had hired Dr. L. G. Wright to impersonate Dyment before the Georgia Board in writing the examination preceding the issuance of his certificate. Based upon the evidence submitted, the license heretofore issued to Phillip Dyment to practice medicine and surgery in the State of California was revoked.

Testimony was also heard in the cases of Dr. Mary Turnbull and Dr. Lillie L. Koerber, each having been charged before the Board with alleged abortions, and after hearing the testimony the Board dismissed both cases.

Attorneys Charles Lyon of Los Angeles and Clarence Morris of San Francisco appeared, petitioning the Board to restore the license of Roy S. Lanterman, heretofore revoked on a charge of abortion. Petition for restoration was denied by unanimous vote of the Board.

Frank T. Duncan of San Francisco appeared before the Board, petitioning restoration of his license to practice medicine and surgery, and after due consideration thereof, restoration was denied without prejudice.

The Board reconsidered its former action in revoking the license of George H. Richardson of Los Angeles, dismissing the charges, thus automatically restoring the license heretofore issued George H. Richardson, entitling him to practice medicine and surgery in the State of California.

The license heretofore issued to Dr. E. R. Hoffman, entitling him to practice medicine and surgery in the State of California, was revoked, based upon the record of his conviction by the United States authorities on a charge of violation of the Espionage Act.

The cases against Clarence C. Baker, S. F.; Donald E. Harris, S. F.; C. K. Holsman, L. A.; William H. Lockman, L. A.; Harry Seth Walters, San Luis Obispo, were continued to the February 1921 meeting, to be held in Los Angeles.

Petition for a continuance of the hearing of the charges against Frank Thomas of San Francisco and Holmes F. Troutman of Oakland were granted, inasmuch as each of said individuals has appealed from the judgment of conviction in the Superior Court.

Hearing of the charges against J. G. McMath, D. O., Los Angeles; Harry C. Palmer, D. O., Los Angeles; Gertrude F. Steele, Naturopath, Los Angeles, were continued until the next regular meeting, pending disposition by the criminal courts of Los Angeles.

Forty-two applicants wrote the examination, the majority of whom took the examination for physician and surgeon certificate. Two Japanese wrote the examination in the English language.

Sixty-nine oral reciprocity applications were considered; 34 applicants failed to appear for the oral examination, and of the balance, 35, who appeared, 24 successfully passed and 11 failed.

Two holders of a certificate to practice osteopathy in the State of California took the oral examination for physician and surgeon certificate under Section 12½. One passed and one failed.

The reports of the usual committees were read and filed.

Historical Sketch of Galen R. Hickok

The persistent search, covering a period of several years, made by the secretary of the Board of Medical Examiners of California, has ended in the discovery of the original Galen R. Hickok at Santanta, Kansas, where, as the president of the Southern Mortgage Company, he is prominent in municipal affairs. He has furnished valuable information in connection with the theft of his diploma and material facts regarding the career of the alleged Thompson, or Zangwell, or Hickok, who has been practicing in California for several years. The Kansas Galen R. Hickok has agreed to come to California to clear the mystery occasioned by two individuals practicing in widely separated geographical locations under the same name, with credentials alleged to be the same. The Kansas Hickok proposes to show that the California Hickok stole the diploma and credentials of the former, assumed his name thereafter, and has been so known throughout the intervening years.

Records disclose the original Galen R. Hickok was born in Missouri on June 30th, 1873, his present age being 47 (*the affidavit of the alleged spurious Hickok certified that he was born January 1, 1870, making him 50 years of age on January 1, 1920).

The original Galen R. Hickok attended Ottawa University, Ottawa, Kansas, from September 13, 1892, to 1895. In 1897 he registered at the St. Louis College of Physicians and Surgeons as from Winfield, Kansas, and was granted the degree of "Doctor of Medicine" by said institution on April 26, 1899. He reports subsequent registration to practice medicine and surgery in Arkansas, Colorado, Illinois, Iowa, Kansas, Kentucky, Missouri, Nebraska, New Mexico, Oklahoma and Tennessee; that he has not lived in any State west of Kansas, though he has occasionally attended patients in Colorado and New Mexico on special request; that he has at no time ever filed an application for a license to practice in California, Nevada or any other of the mountain or Pacific Coast States, and that any certificate issued by the State Board of any Pacific Coast State in the name of Galen R. Hickok was obtained fraudulently. He further states that in 1902 the diploma issued him by the St. Louis College of Physicians and Surgeons on April 26, 1899, in the name of Galen R. Hickok, together with State Board certificates, etc., were stolen from the rooms he then occupied in the Reynolds Hotel, Ulysses, Kansas, by "this man Zangwell or 'Thompson,' as he was then known," described as then "a little, dark Hebrew," plainly of Continental-Europe extraction" (another communication states he was probably of Polish or Russian extraction), though claiming to have been born "in London of a German father and an English mother, and who at this date would be well along in the *fifties as to age." (See above statement re ages.)

Nothing was heard of Thompson, alias Zangwell, or the stolen documents until the early part of 1904, when the St. Louis College of Physicians and Surgeons reports they received a communication forwarding "us an application blank to be filled out, applying for a license in the State of Nevada. His address was then Midas, Nevada." The Nevada Board reports a diploma issued to Galen R. Hickok by the St. Louis College of Physicians and Surgeons, dated April 26, 1899, was presented by the alleged spurious Hickok in connection with an application and thereupon the Nevada Board on May 2, 1904, issued Certificate No. 151, in the name of Galen R. Hickok, entitling the holder thereof to practice medicine and surgery in the State of Nevada. (See original Hickok's statement above that he never applied to the Nevada Board.) The individual to whom the latter license was issued thereafter is reported to have practiced in the towns of Dweth, Ely, Gardnerville and Midas, all in the State of Nevada, and to have married a Miss Graham at Charlestown, Mardis District, Nevada, whose mother, Mrs. Graham, lived at 1088-1222 Leighton avenue, Los Angeles, in 1913.

In the Spring of 1909 the alleged spurious Hickok took up a residence in Los Angeles, California, where, as a part of his application for a naturopathic certificate to practice in California, he is reported by Dr. Carl Schultz, then president of the Naturopathic Association of California, to have presented a diploma issued by the St. Louis College of Physicians and Surgeons to Galen R. Hickok on April 26, 1899. (Note above the statement of the original Galen R. Hickok that he never filed an application for a certificate to practice in the State of California.)

Note:—Before the Grand Jury in San Francisco on June 6, 1917, the alleged spurious Galen R. Hickok testified that he had been a practicing physician since 1889; was a graduate of the St. Louis College of Physicians and Surgeons of St. Louis, Missouri, that he had practiced about five years in Los Angeles, the same length of time in San Francisco, and the rest of the time in Nevada.

Based upon the record of education, as evidenced by said diploma, the alleged Thompson, or Zangwell, or Hickok, was issued a naturopathic certificate.

A special legislative enactment in 1909 compelled the Board of Medical Examiners to endorse all certificates of the members of the Naturopathic Association of the State of California, provided the certificates were presented for endorsement not later than six months after the passage of the Act, and thus the alleged spurious Hickok obtained authority to practice naturopathy in the State of California. He was subsequently expelled from the association for unprofessional conduct, according to Dr. Carl Schultz.

Under date of August 12, 1909, the alleged Zangwell, or Thompson, or Hickok, wrote the Board of Medical Examiners from 632 West Sixth street, Los Angeles, announcing his removal from 1340 West Washington street, Los Angeles, and his residence in Los Angeles continued until early in the year 1914. During the entire period he was frequently under investigation as an alleged abortionist. An affidavit executed by ————, a resident of —— Temple street, Los Angeles, states therein that on March 13, 1911, she called on Galen R. Hickok, room 234 Bryson building, corner Second and Spring streets, Los Angeles, in reference to an abortion; that Hickok stated he would perform the abortion at once; that he further stated he had a home that was all prepared for confine-

ment cases; that Mrs. J. C. ——— of —— South Hoover street, Los Angeles, accompanied affiant to the office of Hickok.

Under date of May 15, 1911, in a communication signed by Attorney H. T. Morrow of Los Angeles, then in charge of prosecutions for the Board of Medical Examiners in Southern California, the alleged spurious Hickok is referred to as "one of the worst abortionists in town and against whom we have devoted a great deal of effort, closed his office and he has left the city."

The alleged spurious Galen R. Hickok then changed his abode to San Francisco, where on May 21, 1913, he was arrested at 1115 McAllister street, charged with committing an unlawful operation. For some years prior this same address harbored the office of Dr. Eugene Francis West, who had earned a flagrant police record as an abortionist, and who sometime since was reported to have disposed of his practice to Fisher M. Jordan, M. D., whose license to practice in the State of California was revoked June 26, 1918, on a charge of abortion.

Perchance his police experience in San Francisco led the alleged spurious Hickok to return to his former haunts in Southern California, inasmuch as a report from E. A. Somner, then special agent of the Board of Medical Examiners, dated Los Angeles, February 19, 1914, stated that on February 6, 1914, the alleged spurious Hickok was located at 330 Ferguson building, Los Angeles, associated with Rodney Madison, J. F. Millhouse and A. Palotay. Somner's report is substantiated by an affidavit of the alleged spurious Hickok, dated Los Angeles, February 17, 1914, in which he states that Mr. A. Palotay (unlicensed) was then using Hickok's reception room, and Mr. Rodney Madison (unlicensed), with whom Hickok stated he had agreed, as a part consideration of the sum he was paying for office furnishings and chattels, that Madison would do all he could to "induce certain parties with whom he had previously had dealings to call at my (Hickok's) office for professional or other service. To carry this out Mr. Madison agreed for a short time to stay in my office to meet such people that might come in and introduce them to me. Beside the cash consideration, I was to pay Mr. Madison for the above chattels, Mr. Madison and myself contemplated entering into an agreement whereby I was for a time to be agreed up by us, to give him 50% of any profits that I might receive from those parties introduced to me by him. On further thought and consideration, this was abandoned and my entire dealings with Mr. Madison are as set forth * * * "

Our next record of the alleged Thompson, or Zangwell, or Hickok, appears in the handwriting of A. J. McDonald, former special agent of the Board of Medical Examiners, dated January 2, 1915, wherein he reports that "Galen R. Hickok, then located at 450 Ellis street, San Francisco, and until a year and a half ago with Dr. West on McAllister street, also Dr. Lord, called on Dr. R. L. Larson, 964 Market street, San Francisco, telling Larson that on all the profits made on women patients Dr. Larson would send him, he would split fifty-fifty."

On his return to San Francisco, the alleged spurious Hickok entered into an active advertising campaign, both in San Francisco and Oakland, distributing from house to house cards reading: "Dr. G. R. Hickok. Specialist for Ailments of Women (formerly with Dr. West), 704 Pantages Theatre Bldg., 935 Market St., between Fifth and Sixth Sts., San Francisco." The daily papers all carried the advertisement of "Galen R. Hickok (formerly with Dr. West), Specialist for Women Only. Cure guaranteed in every case accepted." The classified list of the San Francisco Telephone book carried a similar advertisement and his nefarious practice thrived.

Since 1911 the Board of Medical Examiners of the State of California has fruitlessly endeavored to serve citation papers on the alleged spurious Galen R. Hickok, commanding his presence before the Board to show cause why his license to practice naturopathy in the State of California should not be revoked. Hickok, evidently informed through underground channels, each time mysteriously disappeared, remaining in hiding until a date subsequent to the statutory thirty days next preceding a regular meeting of the Board, within which period no service of a citation can legally be made. Immediately on expiration of the time limit he could readily be found in his accustomed habitat. During the past two years our various special agents and operators have persistently endeavored in every conceivable way to secure service at the San Francisco office of Hickok, at the home of Hickok in Berkeley and at the "Mystery Castle" at Salada Beach. Finally by a ruse Hickok was served with a citation and complaint, returnable at the October, 1919, meeting. Legal obstacles were immediately forthcoming. The attorneys for the alleged spurious Hickok, sans their client, appeared at the June, 1920, meeting, but through default of witnesses it was found necessary to dismiss the charge.

About the time Dr. Ephriam Northcott, now incarcerated in San Quentin prison, was charged with murder (subsequent to the discovery of the body of Army Nurse Reed, ruthlessly thrown over a precipice in San Mateo county following her death as the result of a criminal operation), the alleged Thompson, or Zangwell, or Galen Hickok, for some unaccountable reason, closed his office in the Pantages building, San Francisco, discontinued his advertisements in various newspapers around the bay, and, according to his office nurse, Miss Clark, sold "some of his office furniture and equipment to a second-hand dealer" and the rest was to be stored in her residence, where, it was later ascertained, all mail addressed to said Hickok was to be delivered. Rumors persisted that the work heretofore performed by Hickok was being referred to a certain Market-street practitioner, whose license was revoked some years ago. Tales of closed automobiles conveying women patients from San Francisco to a San Mateo haven would not down, and now for the denouement.

The California Dr. Hickok remained in the background until about the middle of September, 1920, when he reopened his office in the Pantages building, San Francisco. A report to the San Francisco Police Department of the mysterious disappearance of a San Francisco married woman, recently treated by a doctor in the Pantages building, led the Police Department to raid the "Mystery Castle" at Salada Beach. They scaled the outer wall and, gaining entrance to the "Mystery Castle," found the premises equipped as a hospital, a nurse and cook in charge and three girls, 14, 18 and 21 years of age, confined to bed, alleged to have been criminally operated on by the alleged spurious Hickok. Hickok was immediately arrested at his Berkeley home on a charge of abortion, as well as a charge of contributing to the delinquency of a minor, and is now on bail, awaiting trial in the Superior Court of the County of San Mateo.

Additional record of Galen R. Hickok of San Francisco is as follows:

Arrested in San Francisco, May 21, 1913, charged with abortion.

August 12, 1913, held for Superior Court, San Francisco, on charge of abortion; bonds, $5000.

Arrested March 15, 1916, charged with abortion.

Arrested August 25, 1916, charged with abortion.

Oakland Enquirer of May 23, 1917, stated that Hickok was charged by Coroner's Jury with abortion on Mary Ethel Bennett, deceased.

1917. Indicted by San Francisco Grand Jury on charge of murder in connection with the death of Mary Ethel Bennett.
February 9, 1918, arrested on criminal operation charge by Detective Andrew Ganghran, San Francisco.
February 18, 1918, rearrested on complaint of Hazel Wilson.
August 31, 1920, arrested, charged with abortion and contributing to the delinquency of a minor.

Collected Clippings on Medical Law Enforcement

Osteopath, License Revoked, Practices, Jailed

Pleading guilty of practicing without a license, J. Otis Burnett, of Los Angeles, was given 180 days' suspended jail sentence in Judge Chesebro's Court, Los Angeles, August 11, 1920. His license to practice osteopathy was revoked March 19, 1919, on a charge of performing criminal operation.—Los Angeles Examiner.

A Dogberry Come to Judgment

T. H. Butler, an unlicensed chiropractor, was arrested at San Bernardino, Calif, August 20, 1920, on a charge of violating the Medical Practice Act. Justice of the Peace A. M. McCrary released Butler without bail and complimented him upon his success!—Los Angeles Record, September 4, 1920.

A Tale of Great Expectations

The Sacramento Union says that 125 chiropractors called on acting Governor Young on September 4th, petitioning that the executive suspend prosecution of unlicensed chiropractors until after the November election, when the chiropractor initiative will be placed before the people. The Los Angeles Examiner stated August 29th that 600 automobiles would leave that city alone for this pilgrimage. Elimination must have been ruthless when but 125 individuals from the entire State appeared in the finish at the State Capitol.

Dr. Martha Allen Reinhart Surrenders

Dr. Martha Allen Reinhart (licensed) surrendered to the San Francisco police on September 17th, and was given a preliminary hearing upon the charges of contributing to the delinquency of a minor and of abortion as the alleged accomplice of "Dr." Galen Hickok. She was released on bail, after being held to answer to the Superior Court.

Charge of Murder Follows Illegal Operation

Dr. L. A. Banter, a licensed physician and surgeon, was arrested at Pittsburg, Calif., September 16, 1920, charged with murder, following the death of Mildred Stou, which occurred on September 11th, as a result, it is alleged, of an illegal operation. A plea of not guilty was entered at the preliminary hearing on September 17th, and Dr. Banter was released under $20,000 bail.

Physician "Dangerous to the Profession"

Because he lent his aid to peddlers of morphine, Dr. Charles E. Brown, a physician of Fresno, Calif., was declared by Judge Briggs "dangerous to the medical profession." Dr. Brown was arrested September 17, 1920, and pleaded guilty to selling morphine in wholesale quantities to peddlers, recently selling 850 grains to peddlers within three weeks, reported twice as much as was purchased by all the other physicians of Fresno in the same period.

Violators of Medical Practice Act

Chinese "herbalists" and chiropractors divide the honors in recent arrests for violations of the Medical Practice Act in the State. Some of the more notable instances follow:

The Long Beach Press, August 28th, says that J. Fred Courtney, unlicensed chiropractor, was arrested for violation of the Medical Practice Act and was released on $250 cash bail.

Melville Ellis, chiropractor, was arrested at Long Beach, charged with practicing without a license, according to the Long Beach Press of August 2nd.

H. Engmarsk, chiropractor, arrested at Los Angeles for practicing without a license, stated that ten chiropractors had been arrested during the first week in August for violating the law, according to the Los Angeles Record of August 7th.

B. E. Frank, arrested at Chico for practicing as a chiropractor without a license, has declared his intention of bringing ex-Governor Morris of Wisconsin, attorney for the national chiropractic organization, to California to defend him, according to the San Francisco Chronicle of August 22nd. On the several prior occasions that ex-Governor Morris has journeyed to California as attorney for chiropractors accused of violating the Medical Practice Act, he has invariably been worsted by the attorneys for the Board of Medical Examiners.

The Vallejo Chronicle of September 3rd says that T. S. Handley, recently convicted of violation of the Medical Act in Vallejo, came into court expressing the wish to pay the fine and drop appeal.

M. Iverson, unlicensed chiropractor, arrested at Pomona for violation of the Medical Practice Act, says, according to the Pomona Bulletin of August 7th, that he will make a hot legal fight.

Chong Hi, Chinese herbalist, was arrested at Chico on August 19th, charged with violation of the Medical Practice Act, according to the Chico Enterprise of August 19th.

Mabel A. Kellom, unlicensed chiropractor, was arrested at Chico August 19th, charged with violation of the Medical Practice Act.

The Sacramento Bee of August 20th reports the arrest of Quong Kee, Chinese herbalist, on a charge of violating the Medical Practice Act.

W. S. Ling, a well-known Chinese herbalist of Oroville, was arrested there by Assistant Special Agent Favatt on a charge of violation of the Medical Practice Act. The Oroville Register of August 21st reports his release on $1000 bail.

W. E. McClelland, unlicensed chiropractor, was arrested at Eureka August 9th on a charge of violation of the Medical Practice Act, according to the Eureka Standard of August 10th.

Ada McKeon, unlicensed chiropractor, was arrested at Grass Valley August 23rd, charged with violation of the Medical Act, and was released on $100 bond, according to the Sacramento Bee of August 24th.

Muira Mizuno, unlicensed Japanese, was arrested at Del Rey, Fresno county, charged with violation of the Medical Act, says the Riverside Observer of August 5th.

Poo On, Chinese herbalist of Modesto, who appealed some months ago from the sentence imposed by Superior Judge J. C. Needham, must go to jail and pay a fine for violating the Medical Practice Act, as determined by the District Court of Appeals.—Fresno Republican, September 10th.

C. E. Parsons, unlicensed chiropractor, was arrested in Los Angeles August 9th on a charge of violating the Medical Practice Act.

Status of Venereal Disease Control

REPORT OF COMMITTEE ON CONTROL OF SYPHILIS AND GONORRHEA

(Adopted by Faculty of Stanford University Medical School)

The problem of controlling venereal disease is, as all recognize, a stupendous undertaking from every point of view, and one which demands far

more support, not only from the medical profession but from the public in its attitude and from the state and federal bodies as regards financial and legal support. The ideal method for controlling venereal disease is very intricate and would be the cause of much criticism at the hands of all who fall prey to its enforcement.

From a medical standpoint the licensed and segregated areas in large communities had or might have had their desired advantages if there were not insuperable objections from a moral and sociological point of view. The main trouble with the licensed areas was that their mere presence was a constant temptation and invitation to men and women and announced openly to the world at large that prostitution had a right to exist. Communities that have abolished them have formally declared that they do not approve of prostitution, and that their young manhood and young womanhood should look with shame on such proceedings.

In a segregated and recognized area, we certainly had a unit on which to work against venereal disease, a control, if it had been handled in a straightforward way, over a large part of the venerally diseased women, and a means of control over a large number of the men who would patronize them. However, as long as segregated areas of prostitution are abolished and their re-establishment would be met with a terrific outburst of opposition and antagonism, we are confronted with the proposition of endeavoring to make sexually clean large and small communities where the venereally diseased and nondiseased mingle freely and often without any knowledge of the status of each other; where clandestine prostitution is conducted in supposedly clean households, and where a sense of false security is created among the sexes because of the social position or character of the household. The many evils of the segregated and nonsegregated areas are known to all thinking men and women, however, and need not be elaborated at length.

The fundamental method of controlling venereal disease is education, both at home and at school. Fathers and mothers are still very prone to neglect this side of their children's lives. Boys soon acquire a hazy knowledge of some of the facts and girls to a less extent. Many girls still become wives without knowing that their husbands or their own youthful indulgences may be the cause of continuous ill health to themselves and their children. Many young men are married without for a moment considering that the diseases they had a few years ago, though now latent, may be the cause of ruining their homes and the health of those in them. Young men and young women must be taught that every one with whom they are sexually intimate must be considered either an active or latent carrier of disease until they are proven otherwise. This seems very drastic and unjust to many obvious non-offenders. However, as long as it is definitely known that venereal diseases can be contracted in innocent ways, no one who is fair minded should be bigoted enough to consider himself or herself an exception to all rules which govern the rest of humanity.

In the effort toward education, nothing has impressed the public more or given them more firsthand knowledge than certain moving picture films which were shown during the period of the war, and later. The film entitled "Fit to Fight" was especially well received, and it has been the experience with both private and clinical patients that they greatly appreciated the information given them by this means, and would gladly receive more such information were it available and presentable. Undoubtedly moving pictures have great educational possibilities, not only because they present their subject clearly, quickly, but because people are enabled to appreciate and understand them with a minimum amount of effort.

Not only should those reaching adolescence be taught regarding the likelihood of contracting venereal disease following intercourse, but those who are not apt to be deterred by this fear should be taught the methods of prophylactic treatment if clandestine coitus has occurred. There are often cases reported where attempts at prophylaxis have been undertaken but without a definite knowledge of the method of procedure. Prophylactic stations should be provided in places as convenient as possible, and their patronage should be kept private and efficient in order to discourage negligence, and to give instructions to those who are ignorant as to prophylactic measures. These stations should be placed in accessible places where treatment can be conveniently given and where people will be encouraged to take advantage of this opportunity. In San Francisco, for instance, such localities as the Ferry Building, Southern Pacific Depot, Central Emergency Hospital, some of the large down-town hotels and the Beach, should be provided.

Following the education of men and women as to the origin, results and most trustworthy methods of controlling venereal diseases, should follow a faithful reporting of all cases which present themselves for diagnosis and treatment. Of course early and severe cases are easily detected, but painstaking and accurate methods should be enforced in all doubtful cases. Recommendations from competent physicians who have some claim, though perhaps not letter-perfect, should receive credence enough to compel patients to carry out treatment, as in all such cases it is far better to err on the side of safety than to take the chance of a long-continued infirmity. It is useless to elaborate on the amount of distress and disability that may follow the careless oversight of a few doubtful organisms found on a smear. The idea of reporting cases is, of course, to have a record of infected people who shall be kept under supervision until well, and to furnish the necessary data which would be an index to the number of cases cured, benefited or unimproved, and also as to the expenditure of funds.

Before venereal disease can be eradicated some drastic means will have to be instituted and enforced regarding it. It is a somewhat futile expenditure of money and energy to treat a patient for a Neisserian infection in San Francisco and allow him, in the midst of his disease, or in its acute state, to take a trip to Chicago or New York and to indulge as he may desire. Not only is the time and money on the part of those who contribute being wasted, but at the same time the larger fact of eliminating venereal disease is being lost sight of. The ideal method for controlling such diseases would be to keep each infected individual in confinement or in quarantine until the likelihood of his infecting others was over. Also, of compelling infected men or women to divulge the source of their infection. In this way both sexes would be restrained from spreading the disease they harbor.

Under such regulations a person would not necessarily have to stay in absolute confinement, but would be compelled, in going from one part of the country to the other, to resume his therapy and have his new physician either notify the authorities or the doctor by whom he was originally treated. The method now in vogue of allowing people to continue or discontinue treatment as they like will never attain satisfactory results. In connection with this somewhat elaborated method of control, an efficient follow-up system and a careful reporting of cases would necessarily have to be established to handle the compulsory side of the problem. The control of venereal disease (other than by the method of

education) will only be possible through carrying out drastic measures.

The question of premarital examinations has always to be considered when the control of venereal diseases is being attempted. In this connection a decided amount of discretion is necessary, but until legal and educational means have eradicated these diseases, it is necessary to consider it. These are the cases where venereal diseases are most often innocently spread, and every precaution should be taken before otherwise happy and prosperous homes are contaminated.

With venereally diseased patients under legal and competent medical control; with every effort being made to induce people to take advantage of the usefulness of prophylaxis; with premarital examinations being made and faithful control of patients being kept and followed, venereal diseases should soon decrease decidedly.

The foregoing suggestions will doubtless be considered rather drastic but they are only presented as a working basis, and an attempt to get at the root of one of the great scourges of the human race. Modifications which are as effective, or more so, should be gradually instituted—all aiming at the most efficient means of eradicating these plagues.

Method of Handling Luetic Patients

The method of handling luetics in clinical work has been worked out practically at the Stanford University Medical School in the clinic for skin diseases and syphilis.

Luetic patients are admitted through the Social Service Department and assigned to the skin clinic. Luetic patients, unless cerebrospinal lues are transferred to the skin clinic when discovered in other departments of the University Medical School. Both acute and chronic cases are at once reported on official blanks to the Board of Health.

Following a **thorough physical examination** and **routine urinary examinations** anti-luetic treatment is begun. In early cases the administration of arsphenamin is immediately begun in the Clinic ward of the Hospital adjoining the Clinics, and a course of five grey-oil injections or 30 mercury inunctions is begun, unless there is some physical contra-indication. Printed instructions as to the method of employing the "rub," as to the possibilities of untoward symptoms and the importance of reporting such to the Clinic are always given to the patients to carry away with them. There is always given, also, a booklet and printed sheet regarding the dangers of lues to themselves and those around them; as to the necessity of persistent and faithful treatment and the serious results which lues may produce. This information has been given out at Stanford since 1912. (Copies of these are attached herewith.)

In late cases the patients are put on a saturated aqueous potassium iodide solution with instructions as to the dosage and procedure of increasing it. This is, of course, combined with the mercury and arsenic treatment. The mercury inunctions are given in a course of thirty rubs (4/o gm. to men and 2/o gm. to women) and arsphenamine is given intravenously. After these patients have had a sufficient number of arsphenamine treatments (6 to 10), to justify it, a rest is given for a week or two, followed by a Wassermann test. If the test returns negative, the patient is put on a mercury and potassium iodide mixture for a period of 3 to 6 weeks and a blood test is again taken after an intervening period. Tests are repeated at intervals of one to two months during the first year, and if after that the patient is serologically and clinically negative, he is observed at intervals of 2 to 4 months for the two succeeding years. Of course frequent examinations are made for possible visceral or cerebrospinal foci during the entire period of treatment.

If the blood returns positive the anti-luetic treatment is continued as persistently as possible. This plan is constantly being modified in our efforts to improve our methods.

Intravenous treatments are given both in the Hospital and in the Clinic. All patients who are financially able are sent into hospital wards and given Arsphenamine treatments, where they remain over night (at a total cost of $6.50). Patients who are not financially able, are given Neoarsphenamine intravenously in the Stanford clinic for the cost price of the drug. In case patients are unable to purchase the neoarsphenamine it is furnished them from the budget of the Stanford clinic. The ambulatory patients are required to remain under observation from 15 to 30 minutes following the intravenous treatment.

All funds are handled through the Social Service Department of the University, especial care being taken that the patients purchase their medicine from the Dispensary, getting a receipt therefrom and turning the same over to the Social Service worker who delivers it to the Stanford clinic on the day the patient receives his treatment. No funds of any kind are handled by those doing medical work in the clinic.

An efficient follow-up system has been established to look after negligent patients or those who discontinue their treatments before they are cured. The patients are written to promptly after they discontinue treatment, and if they do not respond, are called upon and urged by the Social Service workers to continue their treatments and to follow instructions as given regarding their conduct.

In the city night clinics the University has a valuable adjunct. Here treatments are given to patients who are unable to leave their work and report to the University clinics during the day. The city clinics also charge a nominal fee for the injections, since on account of lack of appropriations, it is no longer possible to obtain free medication. The city clinics administer both Neoarspheniane and Arspennamine according to their ability to retain the patients in case of reaction.

Involvement of the Central Nervous System

As every case of skin or visceral disease is potentially a case of neurosyphilis, it is advisable either during intensive treatment or when the blood Wassermann is negative, to make certain of this point before the patient is dismissed.

As even the most careful neurological examination frequently fails to disclose evidence of a very early nerve involvement, lumbar puncture should therefore always be done. If a cell count, globulin test, Wassermann and colloidal gold tests are negative the patient may be dismissed. However, a positive spinal fluid requires energetic treatment.

As Arsenic is known to penetrate into the spinal fluid, following intravenous injection of Arsphenamine, in about 40% of cases, it seems best to give every case of neurosyphilis the advantage of intensive intravenous and intramuscular medication.

If the spinal fluid clears up and the subjective symptoms improve, no further therapy is indicated. However, these cases resistant to intensive intravenous methods should have the benefit of intradural medication. While these methods leave much to be desired, they still enable us to arrest cases absolutely intractable to other medication, and when properly given, have no distressing or dangerous complications.

Committee: H. E. ALDERSON (Chairman),
H. J. PRUETT,
H. J. MEHRTENS,
J. R. DILLON.

The following are copies of "instruction sheets" that have been given our patients since 1912.

Inunctions

Every night before you go to bed, take the contents of one salve capsule in the palm of the hand. Sit down in a chair in a warm place, and rub the salve slowly into the skin for one-half hour. Do this every night for **six nights**, using a different place each time. Always choose a place free from hair. For example the following six places can be used by most people:

1. Front of right arm.
2. Front of left arm.
3. Right side of chest.
4. Left side of chest.
5. Right side of abdomen.
6. Left side of abdomen.

The inner side of the thighs can be used instead of one of these places if it is free from hair. Do not rub into the same place twice during the week. Do not take a bath until the seventh night, and that night do not use the salve.

On the next night begin with the rubs as before.

If there is any hair on any of these areas, choose some hair-free region instead, otherwise the skin will become irritated. It is best to wear rubber gloves when you rub in the salve. Do not change your underwear until after the bath on the seventh night.

Gargle your throat night and morning with salt water (two teaspoonsful of salt in a whole tumbler of water), or use the mouth wash ordered by the doctor. Brush your teeth after each meal. Don't drink any liquor and don't smoke. Keep well and strong. If your mouth becomes sore, come to the doctor at once.

H. E. ALDERSON, M. D.

Skin Clinic, Stanford University Medical School.

Stanford University Medical School, San Francisco
Clinic for Skin Diseases and Syphilis

INFORMATION REGARDING SYPHILIS

Syphilis is a very contagious disease and remains contagious for years. It is due to a microbe the nature of which is definitely known. The disease is usually quite curable. It is also preventable.

The manifestations of syphilis usually appear in from two to six weeks after exposure to the disease, in the formation of a sore at the site of inoculation.

The further manifestations consist of skin eruptions of various types which recur frequently in the course of the next few months or years (eruptions of the skin, sexual organs, the buttocks, the palms of the hands and soles of the feet, the lips, tongue, tonsils, etc.). The disease may also affect any organ or tissue of the body.

Often early symptoms trouble one very little and therefore may be overlooked, or mistaken for something else by the patient. In such cases severe symptoms may appear many months or years later. Proper treatment will prevent the appearance of these symptoms.

Persons suffering from syphilis should boil all articles used by them which may carry the disease, in order to protect others.

The disease, aside from sexual contact, is communicated in many ways, among which may be mentioned kissing, using (after a syphilitic person has done so) any of the following: glasses or cups, saucers, spoons, knives, forks, cigars, cigarettes, pipes, soap, combs, brushes, or wearing apparel, as well as by direct contact with a person having syphilis or sleeping in beds used by syphilitics. The infection enters the system through some cut or abrasion in the skin or mucous membrane. This cut or abrasion may be so slight as to be almost invisible.

Syphilis is ordinarily quite curable; but it cannot be cured in a single treatment. One injection of salvarsan (606) is not enough. Repeated treatments are necessary under proper medical supervision. Treatment must not be given up until the attending physician advises that it is safe to do so.

The dangers of the disease include insanity, blindness, paralysis, loss of the nose and palate, decay of bones, and other disfiguring or destructive results.

Only when a patient has taken thorough treatment at the hands of a competent physician, is he protected from the later severe manifestations of the disease.

Persons having syphilis should carefully observe the following rules:

Look carefully after the condition of your mouth.

Brush your teeth thoroughly three times daily and use the prescribed mouth-wash frequently. In cleansing the mouth pay especial attention to the gums and folds behind the teeth. If you have any sores on the gums and inside the cheeks, or on the tongue, or swollen gums, notify your doctor promptly. When you consult a dentist, be sure and tell him that you have syphilis.

During the course of your disease, and while you are taking treatment, you must lead a regular and rational life, avoiding all excesses. Avoid all strongly spiced foods and be very moderate in the use of wine, beer, or other forms of liquor and tobacco. It is best to avoid them entirely, for they add to the dangers of the disease. You should at all times avoid all possibility of communicating the disease to others.

You should not marry sooner than four years from the time of your infection. Marriage at an earlier date is dangerous to both wife and child. Instructions as to when you shall cease treatment and when you may marry, must always be given by the doctor.

Make it a rule to report to the doctor immediately any unusual symptoms. Keep this paper and show it to your doctor and always ask his advice regarding your sickness.

In the future whenever you have occasion to consult a doctor for any purpose, be sure to tell him that you have had syphilis. It is of the greatest importance for him to know this.

H. E. ALDERSON, M. D.

Deaths

CRONEMILLER, MARY M.—A graduate of the Hahnemann Medical College, Chicago, Ill., 1890. Licensed in California 1890. Died October 12, 1920.

GIBBONS, W. E.—A graduate of the Medical College of the Pacific, California, 1876. Licensed in California 1878. Died in Stockton September 21, 1920. Was a member of the Medical Society of State of California.

JOHNSON, WALTER SYDNEY—A graduate of Harvard Medical School 1898. Licensed in California 1902. Died in Los Angeles September 19, 1920. Was a member of the Medical Society of State of California.

LAMOREE, EDITH V. A.—A graduate of Cooper Medical College, California, 1894. Licensed in California 1896. Died in Ventura, Calif., September 18, 1920. Was a member of the Medical Society of State of California; also physician at the State School for Girls.

LARKEY, A. S.—A graduate of Hahnemann Medical College, Pennsylvania, 1889. Licensed in California 1890. Died in Oakland, Calif., September 27, 1920. Was a member of the Medical Society of the State of California.

MANCHA, JACOB S.—A graduate of University City of New York 1884. Licensed in California 1901. Died in Los Angeles September 24, 1920. Age 81.

MAXSON, HARRIET S.—A graduate of University of Michigan 1885. Licensed in California 1888. Died in Berkeley, Calif., September 27, 1920.

PARRAMORE, EDWARD L.—A graduate of the Kentucky School of Medicine, Kentucky, 1889. Licensed in California 1889. Died in Oakland, Calif., October 8, 1920.

URQUHART, R. A.—A graduate of University of Virginia 1874. Licensed in California 1888. Died in Los Gatos September 4, 1920. Age 69.

VAN PATTEN, PHILIP S.—A graduate of the College of Physicians and Surgeons 1898. Licensed in California 1908. Died in Los Angeles, Calif., September 17, 1920.